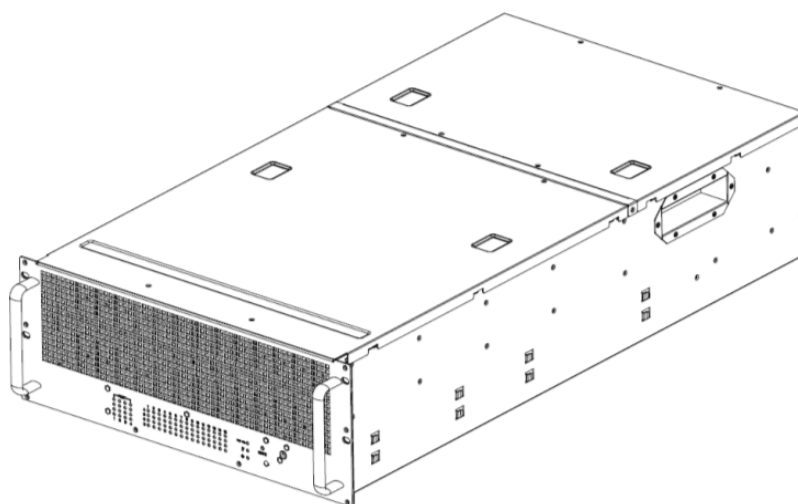


SSG-JBSA21M-4603

User Manual



SAS/SATA JBOD SERIES

Rev.1

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Preface

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Changes

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FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.



Warning:

- A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.
- Use only shielded cables to connect I/O devices to this equipment.
- You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Disclaimer:

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Before You Begin

SAFETY PRECAUTIONS

Before getting started, please read the following important cautions:

- All cautions and warnings on the equipment or in the manuals should be noted.
- Most electronic components are sensitive to electrical static discharge, therefore, be sure to ground yourself at all times when installing the internal components.
- Use a grounding wrist strap and place all electronic components in static-shielded devices. Grounding wrist straps can be purchased in any electronic supply store.
- Be sure to turn off the power and then disconnect the power cords from your system before performing any installation or servicing. A sudden surge of power could damage sensitive electronic components.
- Do not open the system's top cover. If opening the cover for maintenance is a must, only a trained technician should do so. Integrated circuits on computer boards are sensitive to static electricity. Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
- Place this equipment on a reliable surface when install. A drop or fall could cause injury.
- Please keep this equipment from away humidity.
- Carefully mount the equipment into the rack, in such manner, that it won't be hazardous due to uneven mechanical loading.

- This equipment is to be installed for operation in an environment with maximum ambient temperature below 35°C.
- The openings on the enclosure are for air convection to protect the equipment from overheating. DO NOT COVER THE OPENINGS.
- Never pour any liquid into ventilation openings. This could cause fire or electrical shock.
- Make sure the voltage of the power source is within the specification on the label when connecting the equipment to the power outlet. The current load and output power of loads shall be within the specification.
- This equipment must be connected to reliable grounding before using. Pay special attention to power supplied other than direct connections, e.g. using of power strips.
- Place the power cord out of the way of foot traffic. Do not place anything over the power cord. The power cord must be rated for the product, voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.
- If the equipment is not used for a long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
- Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.
- If one of the following situations arise, the equipment should be checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well or will not work according to its user manual.
 - The equipment has been dropped and/or damaged.
 - The equipment has obvious signs of breakage.
 - Please disconnect this equipment from the AC outlet before cleaning. Do not use liquid or detergent for cleaning. The use of a moisture sheet or cloth is recommended for cleaning.

Product features and specifications are subject to change without notice.

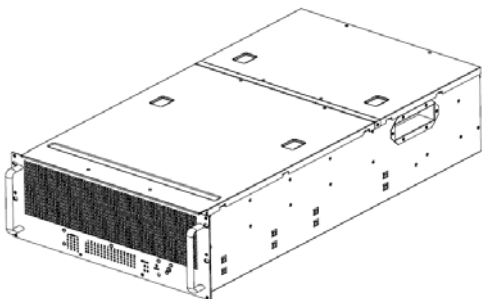
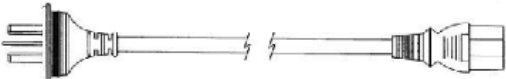

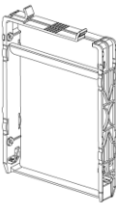

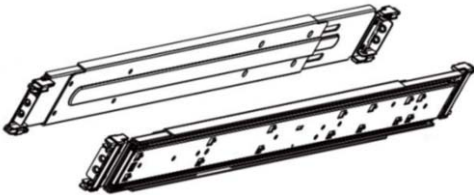
SYSTEM COMPONENTS

Before removing the subsystem from the shipping carton, visually inspect the physical condition of the shipping carton. Exterior damage to the shipping carton may indicate that the contents of the carton are damaged. If any damage is found, do not remove the

components; contact the dealer where the subsystem was purchased for further instructions.
Before

continuing, first unpack the subsystem and verify that the contents of the shipping carton are all there and in good condition.

Your new JBOD System includes:

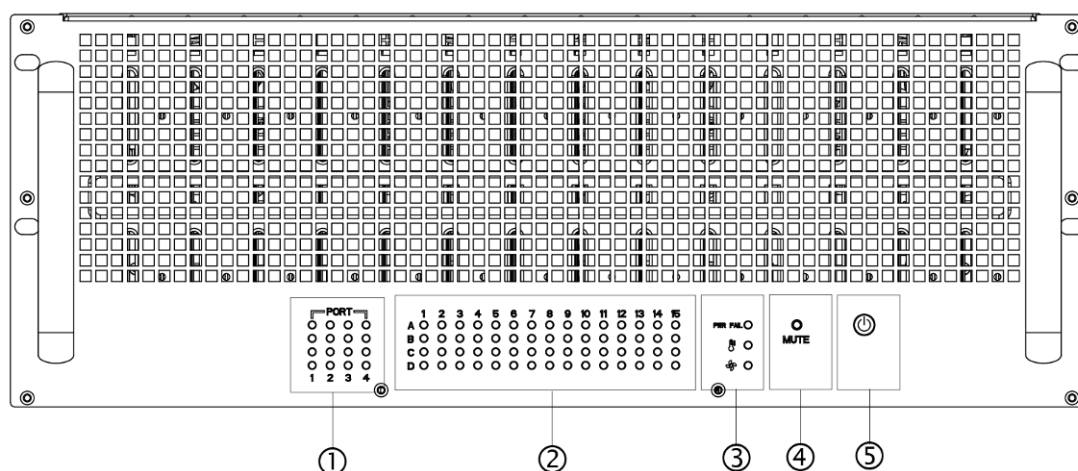
No	Item	Description	Quantity
1		Enclosure (Power supply, fan, 60 HDD tray included)	1
2		Power cord	4
3		DB9-PLUG/RS232 cable	1
4		Spare tray	2
5		6#32 Flat head x 5mm screws	240
6		Sliding Rail	1 Set

If any items are missing, please contact your authorized reseller or sales representative.

1. Introduction

XJ3000-4603 is a 4U rackmount chassis with 60*3.5" HDD hot swap Bay and single expander SATA JBOD which is a high performance, high density, scalable storage product. The 4U-60 JBOD support T10 zoning function and can be shared up to 4 servers.

1.1. Front Panel



① External 8088 port status LED




Behavior	LED Status
No connecting	LED off
Connect with 8088 port	Blue LED light

- Four ports of LED indicators show connection status of each 8088 port

② 60 LED to show HDD status:

Behavior	LED Status
Power on	Blue
Access	Blinking blue
Fault	Red

③ Power fail LED, Temperature LED and Fan LED

 Power fail LED	
Behavior	LED Status
Normal	Blue
Failed	Red
 Temperature LED	
Behavior	LED Status
Normal	Blue
Failed	Red
 Fan LED	
Behavior	LED Status
Normal	Blue
Failed	Red

④ Mute switch button

Alarm sound can be turned off by pushing the mute switch button.

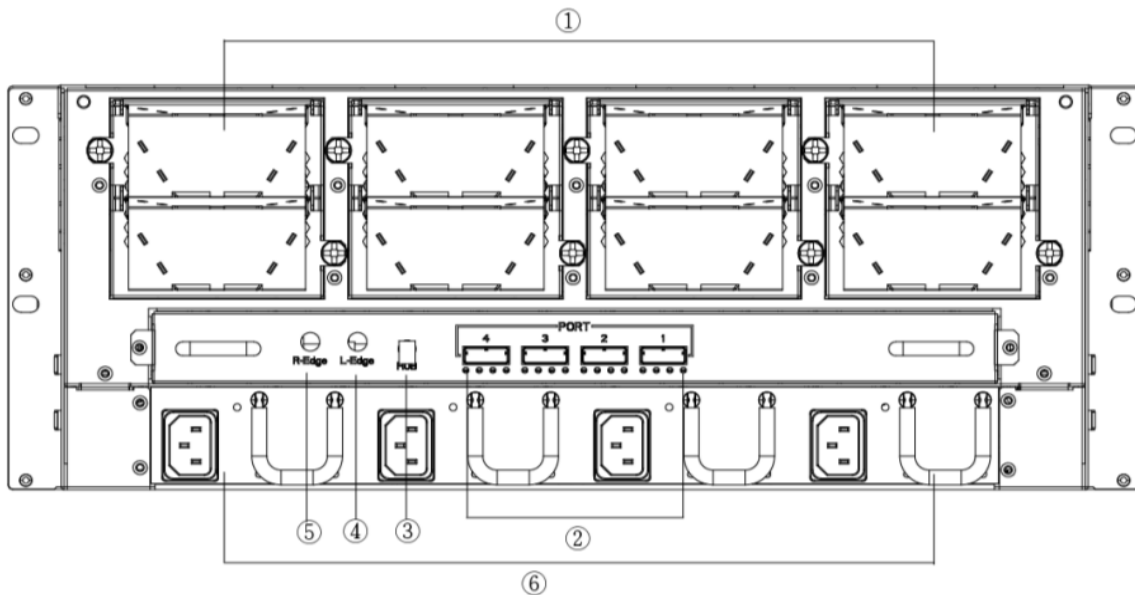
⑤ Power switch

Behavior	Command
Switch on	Switch on One push
Switch off	Switch off Hold switch for 5 sec

Power switch LED	LED Status
System Power on	LED off

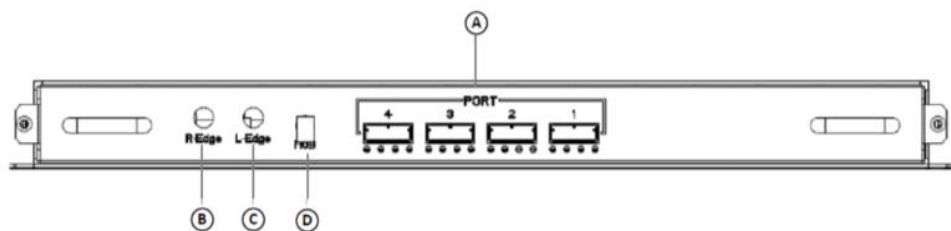
LED can be lighted up from Host as system ID LED. (Command line instructions see 3.8 Identify the enclosure on page 37)

1.2. Rear Panel



- ① Four hot-swappable 8038 PWM fans
- ② Four 8088 external ports
- ③ HUB: Expander COM port
- ④ L-Edge: Expander COM port
- ⑤ R-Edge: Expander COM port
- ⑥ 1350W 3+1 redundant power supply full range 100V-240V auto-switch, each power module is 500 W, 12V single rail.

1.3. 8088 with Zoning Configuration and 8088 port definition



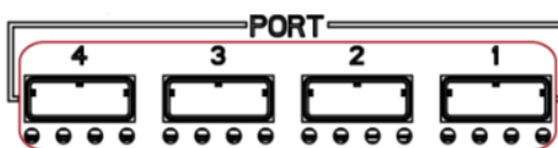
There are 3 kinds of Zoning options can be implemented by Command Line Interface operation (see Paragraph 3.3: Zoning configuration set up). By using the zoning option, four of 8088 ports will have variety of definitions for upstream (uplink) or downstream (downlink). It will be defined by firmware routing setting such as table routing “downstream” and subtractive routing “upstream.”

Subtractive and Table route definition:

1. Whenever the port is defined to subtractive routing and table routing ports both can be connected with SAS HBAs/Raid controllers of host.
2. Subtractive routing (upstream) port defined: it has to be connected with table routing (downstream) port of other JBOD
3. Table routing (downstream) port defined: It has to be connected with subtractive routing (upstream) port of other JBOD.

Zone count 1:

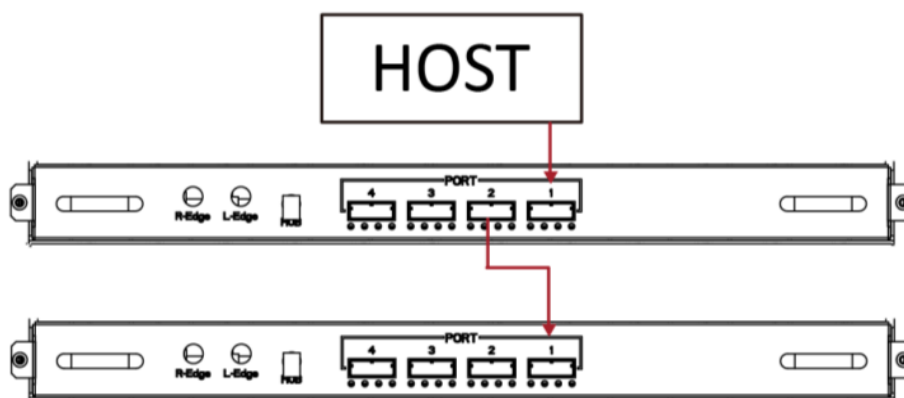
60 drives per zone. The 4x SFF8088 ports, first port for upstream and three ports for downstream ports.

**Zone count 1 8088 port definition**

Port 1, Port 2, Port 3, and Port 4 can be connected with SAS HBAs/Raid controllers of host.

Port 1 is defined to be a subtractive routing (upstream) port which can be connected with table routing (downstream) port of other JBOD.

Port 2, Port 3, and Port 4 are defined to be a table routing (downstream) ports which can be connected with subtractive routing (upstream) port of other JBOD. (see below figure)



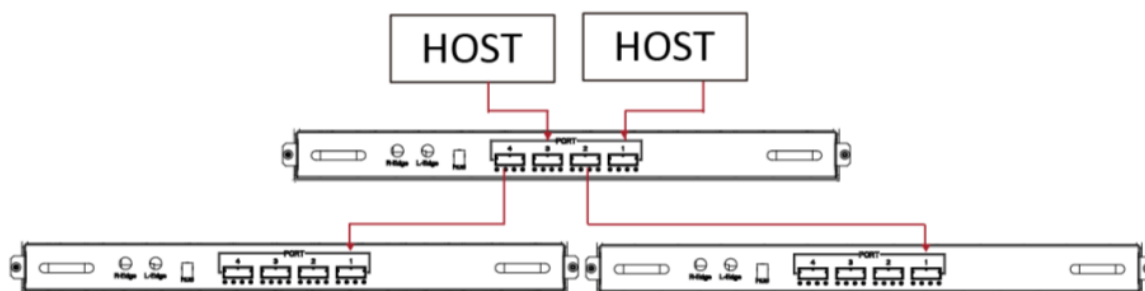
Zone count 2:

30 drives per zone. Two Host channels supported, Port 1 & port 2 supports Host A, Port 3 & port 4 supports Host B.



Port 1 and Port 3 are defined to be subtractive routing (upstream) ports which can be connected with SAS HBAs or RAID controllers of host.

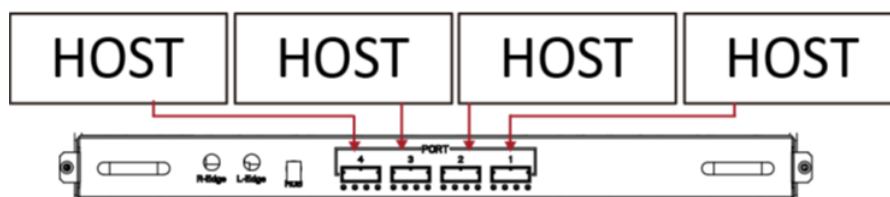
Port 2 and Port 4 are defined to be table routing (downstream) ports which can be connected with subtractive routing (upstream) port of other JBOD. (see below ports connection)



Zone count 4: 15 drives per zone. Four hosts connected .



Port 1, Port 2, Port 3 and Port 4 are defined to be subtractive routing (upstream) ports which can be connected with SAS HBAs or RAID controllers of hosts. There is no table routing (downstream) port to be configured.

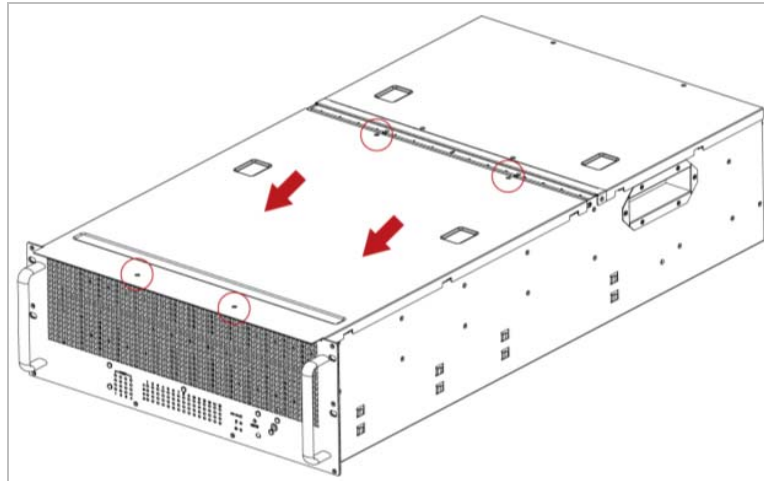


2. Hardware Installation

This chapter provides detailed instructions on hardware installation.

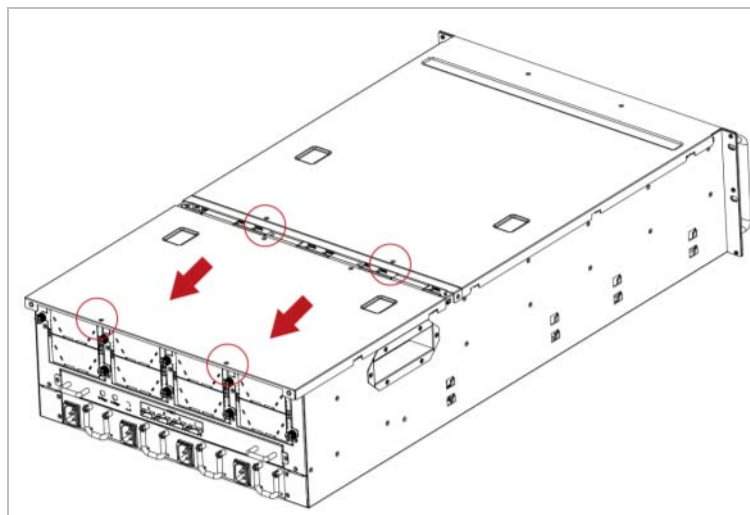
2.1 Removing top cover from enclosure

2.1.1 Removing the front top cover



- (1) Loosen four top cover retaining screw from the side.
- (2) Push the top cover forward till it is apart from the latch and then take it out of the enclosure.

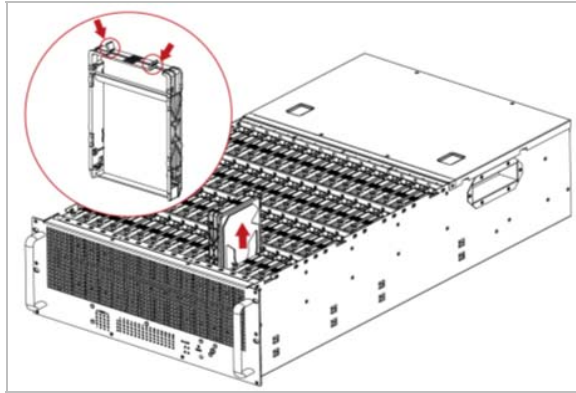
2.1.2 Removing the rear top cover



- (1) Loosen four top cover retaining screw from each side.
- (2) Push the rear cover forward till it is apart from the latch and then take it out of the enclosure.

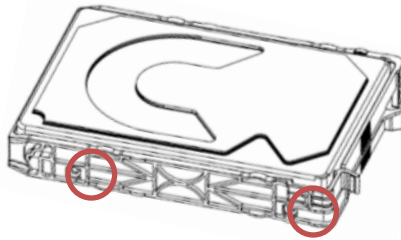
2.2 Removing a drive tray and installing a hard drive

2.2.1 Removing a Disk Drive



- (1) Push the latch on both sides of the hard disk drive tray.
- (2) Pull it out of the enclosure.

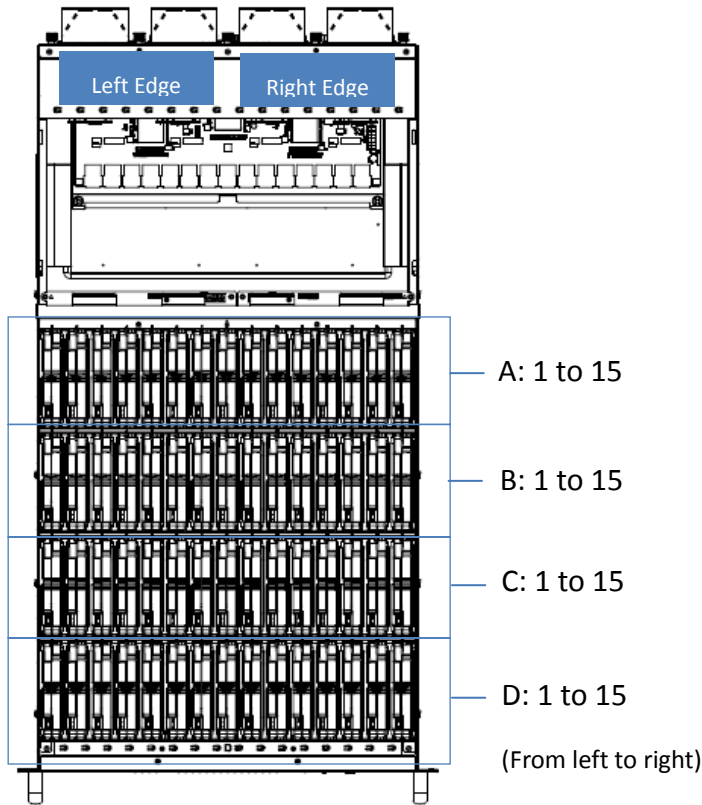
2.2.2 Installing a Disk Drive



- (1) Place the HDD drive into the carrier and matches corresponding screw holes.
- (2) Secure the drive on each side with four of the providing mounting screws.

2.2.3 Enclosure Drive Map

The map below shows LED locations and its corresponding physical HDD drive in the enclosure.



Front panel HDD LED Indicators

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
B	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
C	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
D	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

The hard disk drive mapping number by LSI MegaRAID controller

Zone count 1

Left-Edge expander								Right-Edge expander							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	

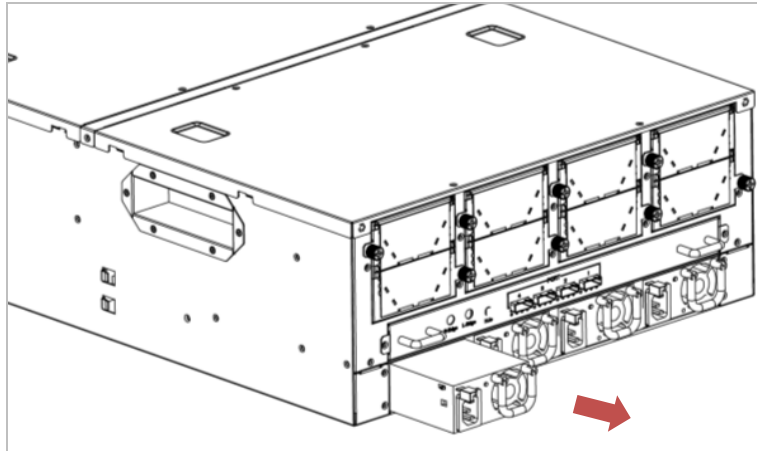
Zone count 2

	Left-Edge expander								Right-Edge expander							
Group 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Group 2	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	

Zone count 4

	Left-Edge expander								Right-Edge expander							
Group 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Group 2	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Group 3	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
Group 4	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	

2.3 Removing and Installing a PSU Module



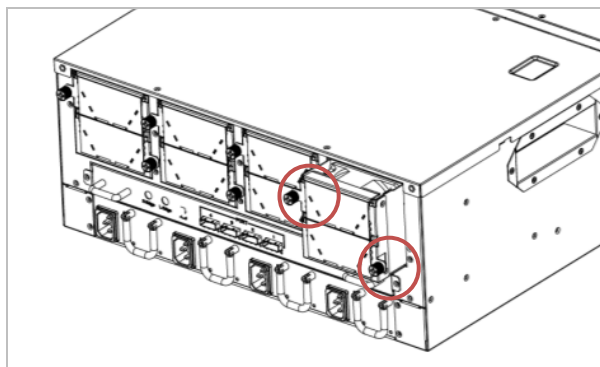
2.3.1 Removing a PSU module

- 1) Remove any power cables connected to the PSU module.
- 2) Allow a minute for fan to spin down.
- 3) Grasp the tray handle tab. Pull the PSU module tray gently and firmly until it clears the enclosure chassis.

2.3.2 Installing a PSU Module

- 1) Slide in PSU module
- 2) Make sure the latch on the module is fully hooked on the PSU housing.

2.4 Removing and Installing a Fan Module



2.4.1 Removing a Fan module

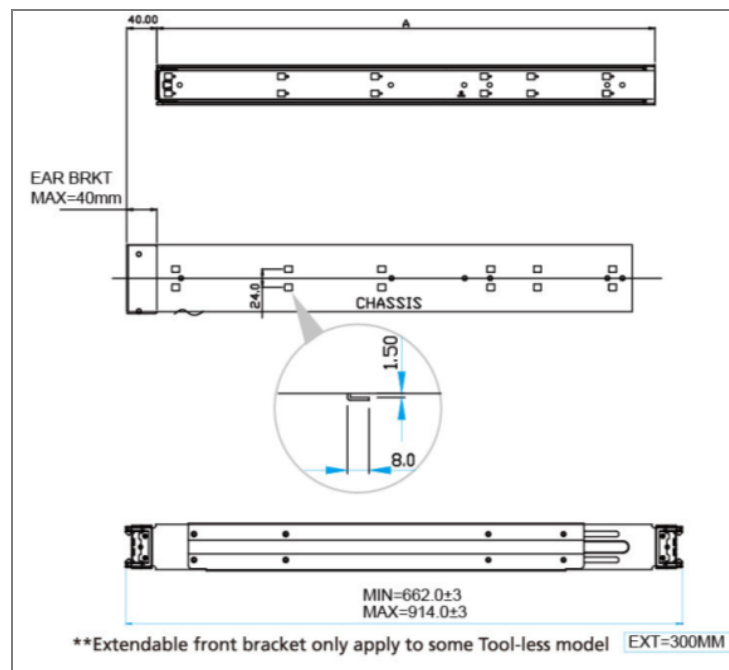
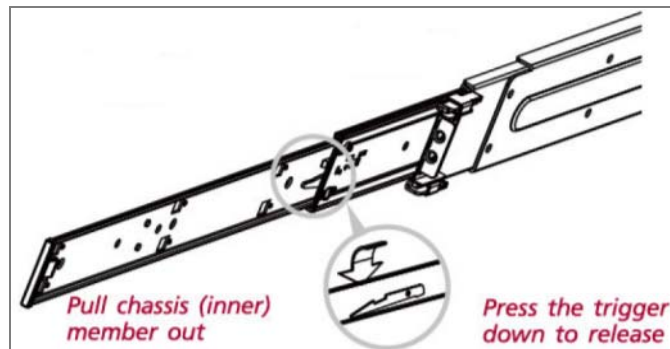
- (1) Loosen Fan module retaining screw from both sides.
- (2) Pull the Fan module tray gently and firmly until it clears the enclosure chassis.

2.4.2 Installing a Fan module

- (1) Align the fan module with the opening in the rear of the enclosure, and slide it into the enclosure firmly.
- (2) Secure fan module retaining screw.

2.5 Installing Slide Rail

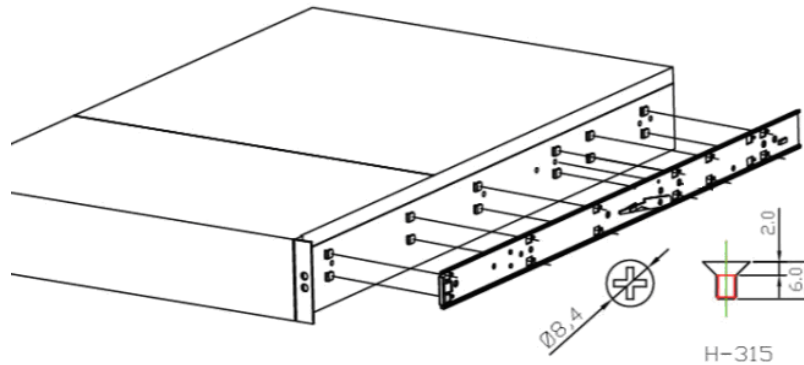
- (1) Pull the slide open. Then press the trigger down as shown on the drawing, and pull the chassis (inner) member out.



- (2) Mount the chassis(inner) member to the chassis

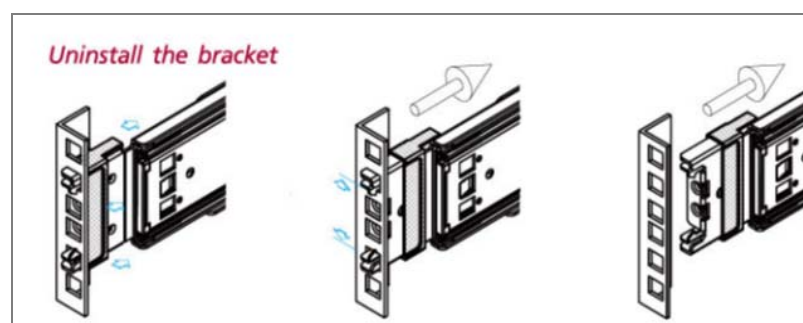
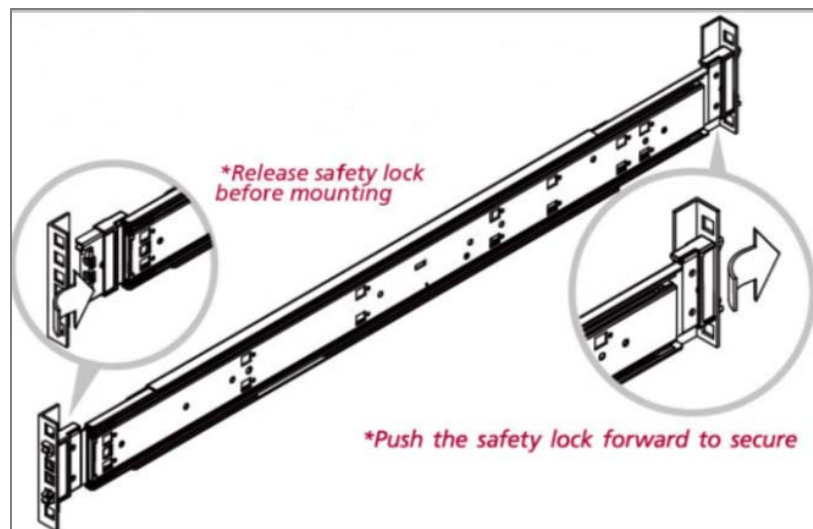
Align the rectangular cut-outs on chassis (inner) member to the pre-formed bayonets on the side of chassis. Secure the chassis (inner) member with H-207 screw from standard screw kit after all the bayonets go through the cut-outs and properly engage.

NOTE: Bayonet on chassis shall be pre-formed as per the recommended dimension and location.



(3) Attach the cabinet (outer) member to the rail

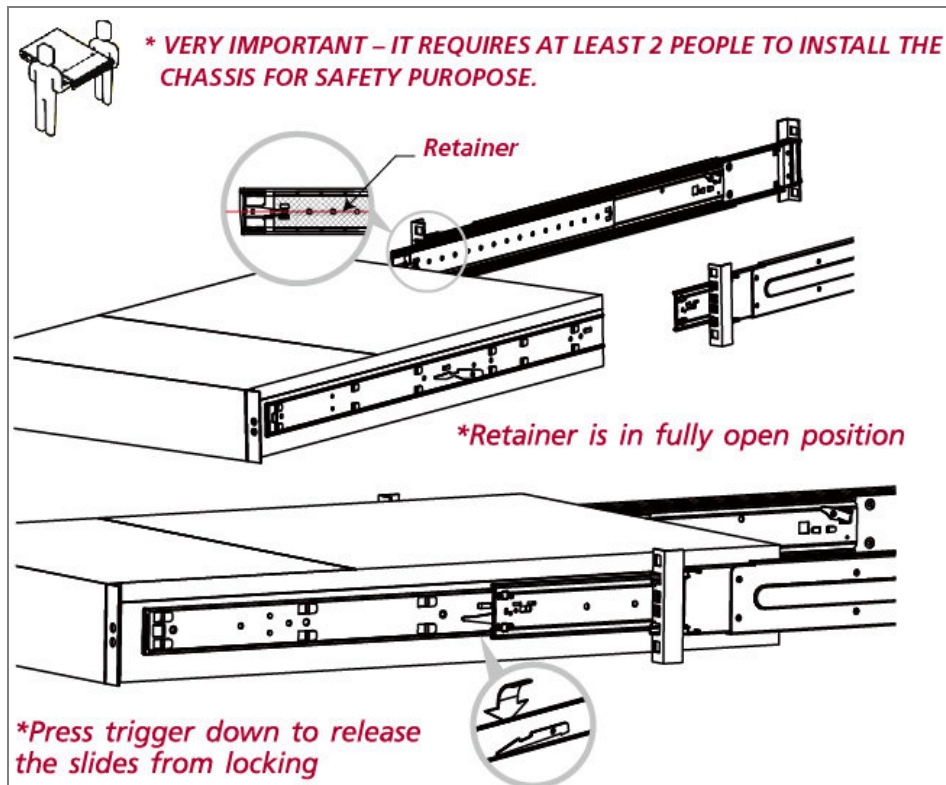
Insert the stag into the upper and lower square holes on EIA rail from the back of rail. Push the safety lock forward to secure the bracket. It is important to check if the safety lock is in unlocked position before mounting the brackets.



(4) Mount the chassis into the cabinet

Insert the chassis (inner) member into the cabinet member as shown on the drawing. It is important to check if the ball retainer is in fully open position before install the chassis.

It might cause catastrophic damage to the chassis if ball retainer is not in fully open position while mounting the chassis. While you are pushing chassis back to the cabinet, you need to release the slide from locking position by pressing the trigger down.



3. Sub-system configuration Setup

3.1. Utility Set up on Host

Step 1: Set up host RS232 connection

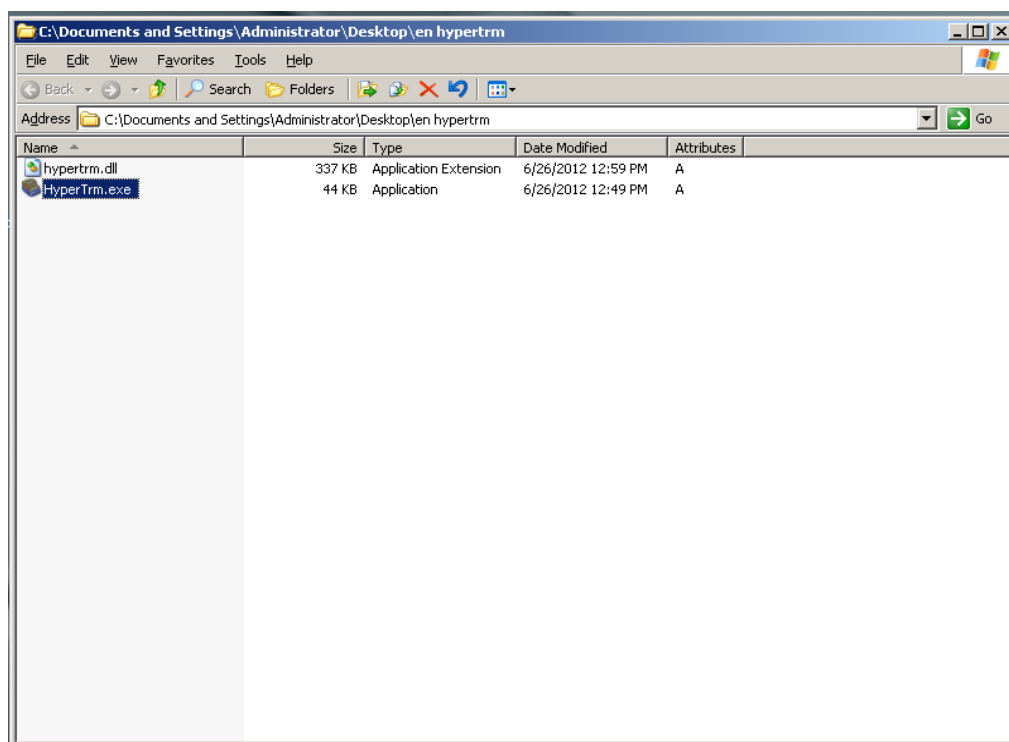
Set up RS232 connection application into your host as below example process.

For example:

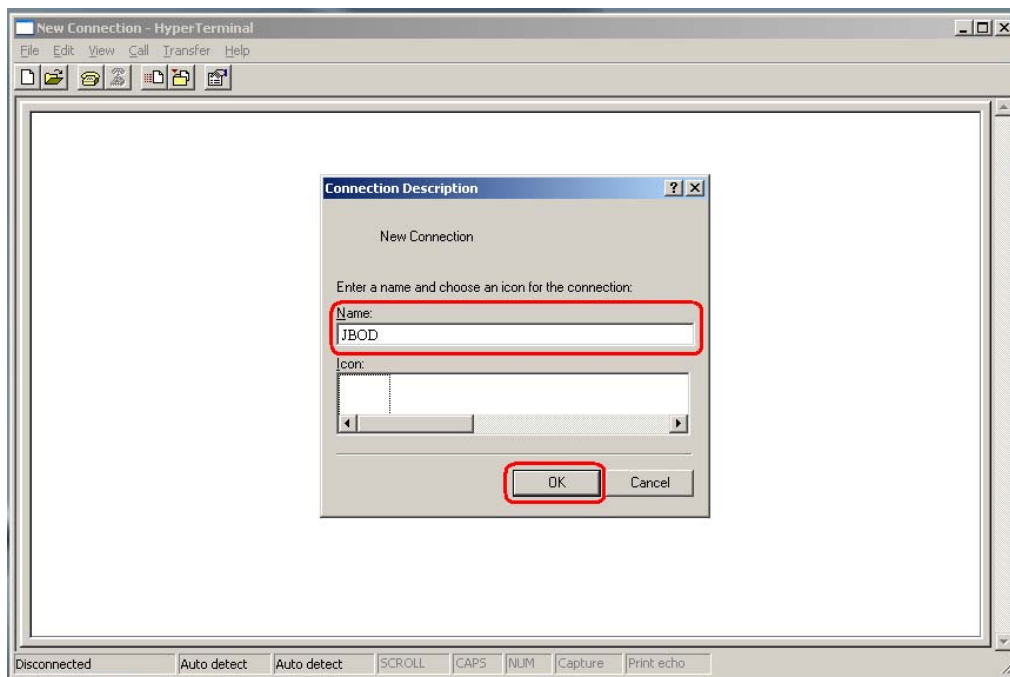
OS: Microsoft Windows Server 2008

RS232 connection application: hyperterminal

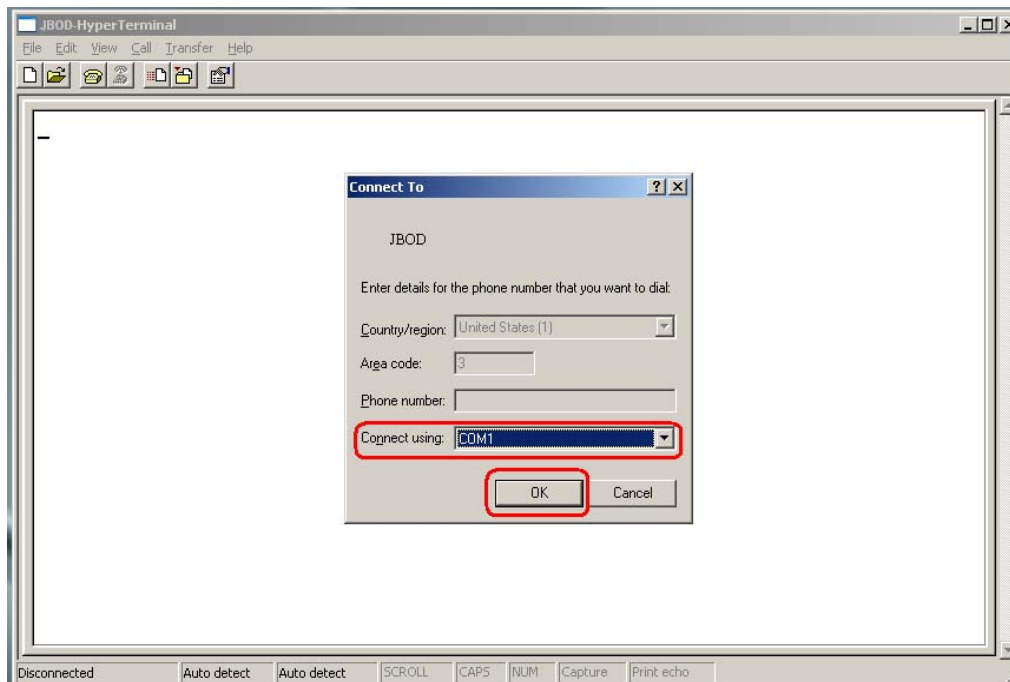
Step 2: Install HyperTrm exe



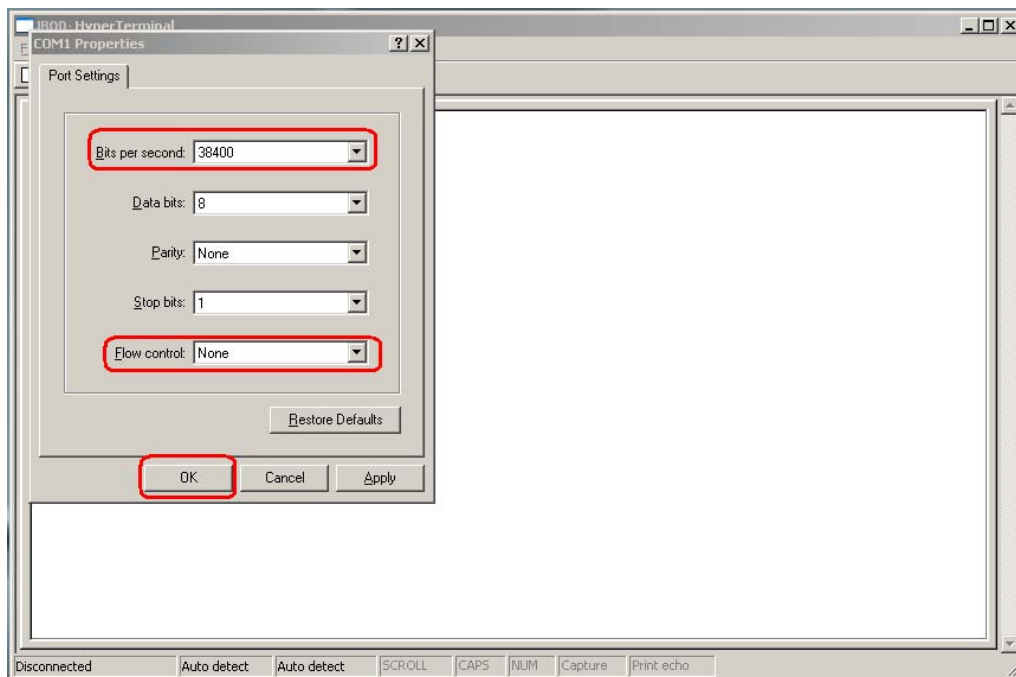
Step 3 : create new name for icon as red mark ->click ok



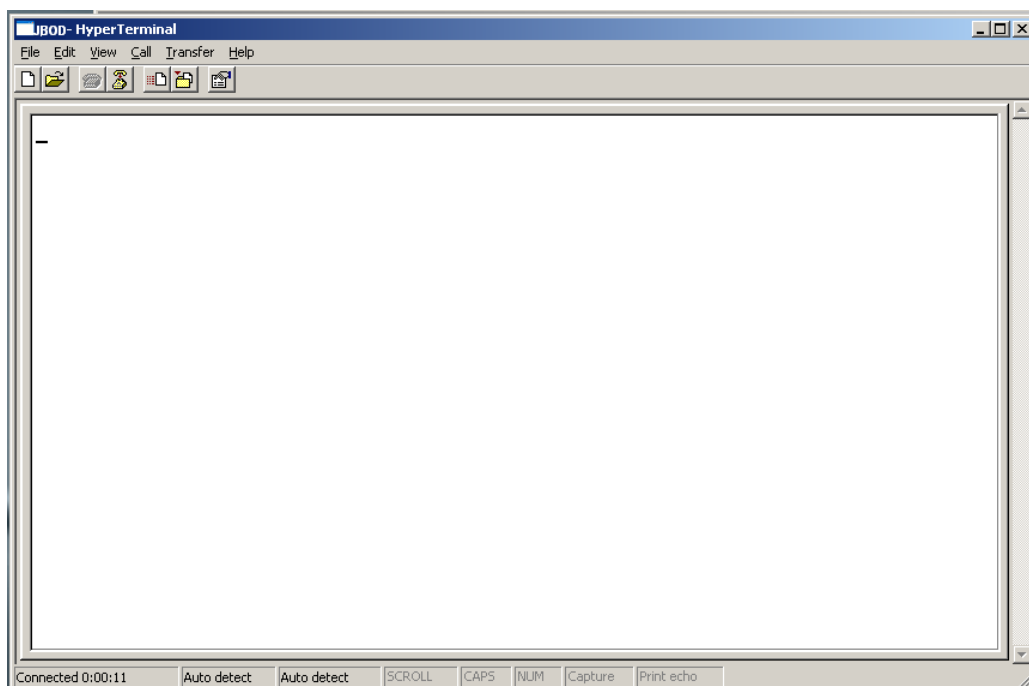
Step 4 : Connecting by using select: COM1 (we use COM1 for example) as red mark ->click ok



Step 5 : Bits per second select: 38400, Flow control select: None as red mark->click ok



Step 6 : set up completed. Screen shows below picture

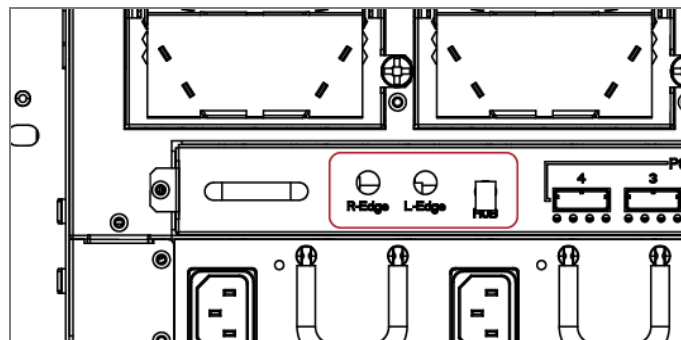


3.2. RS232 connect Host to JBOD

To use a RS-232 DB9 cable connect Hub port of JBOD with host's PC COM port, make sure that host detects the SAS expander device. (see below figures for DB9 RS-232 cable)

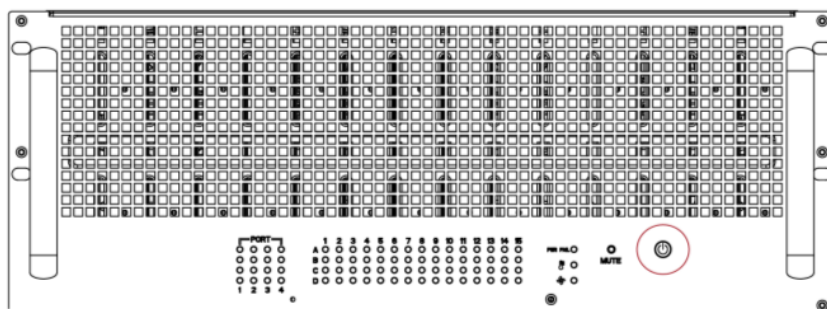


Below figures for DB9 RS-232 cable and SAS expander Hub/Left/Right Edge ports)

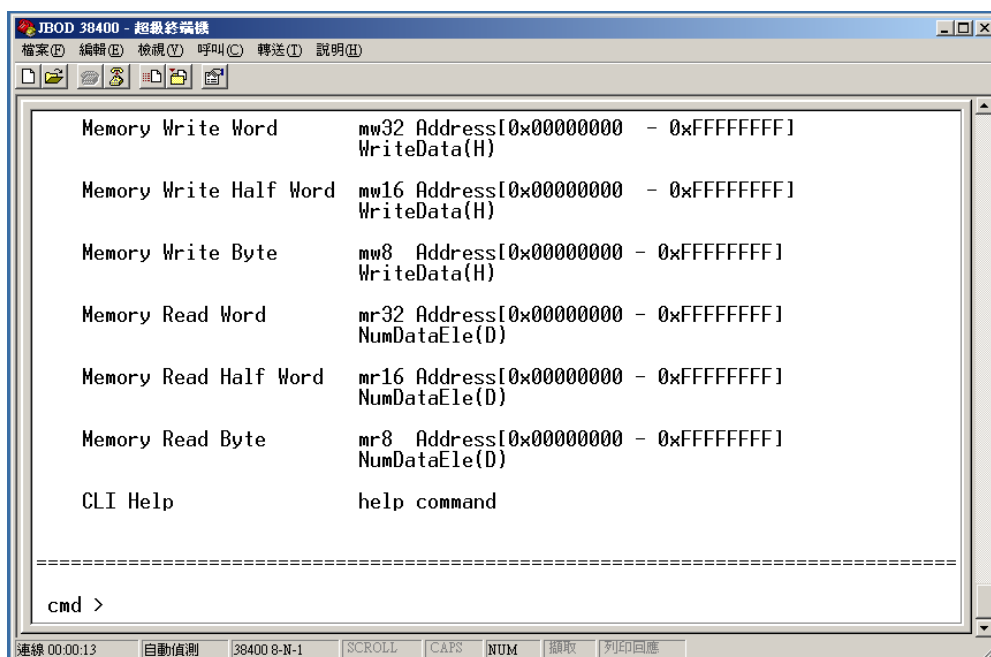


3.3. Zoning configuration set up

Step 1: Switch on the system.

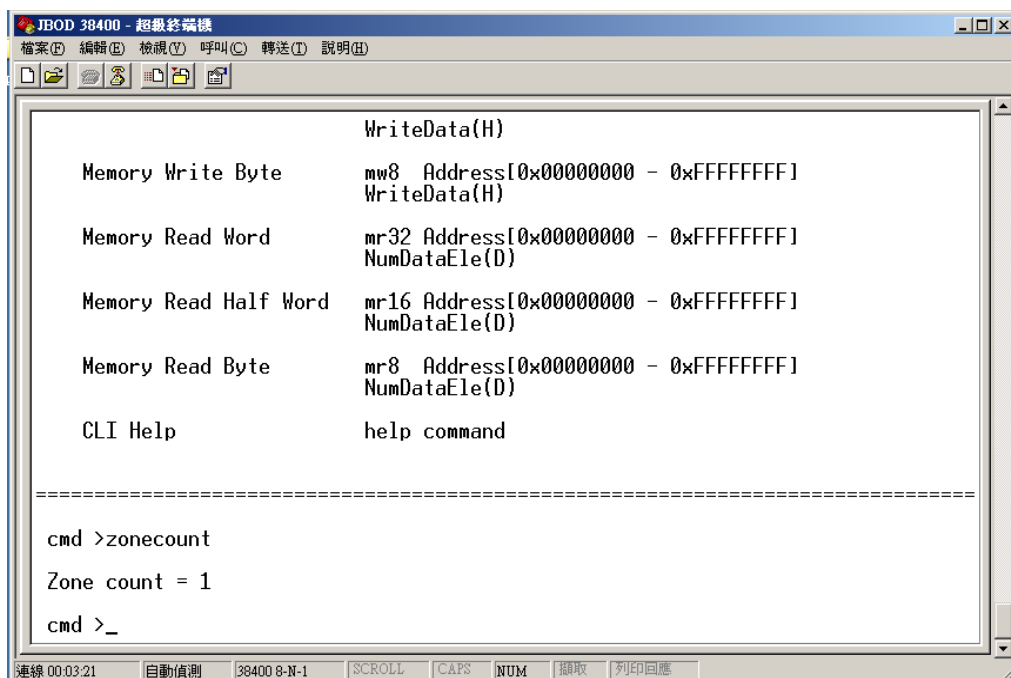


Step 2: The following console screen will appear. To configure zoning option by issue a command line on Hub expander port.



Step. 3 Check the current zone configuration

cmd> zonecount



You can start to set up your preferable T10 zoning from this cmd> .

There are three zone configurations as below: (see refer to paragraph 1.3 for the definition of each upstream or downstream port)

Zone count =1: 60 drives per zone.

Zone count =2: 30 drives per zone

Zone count =4: 15 drives per zone

The default configuration is zone count = 1.

Zoning set process as below 3.4 instruction.

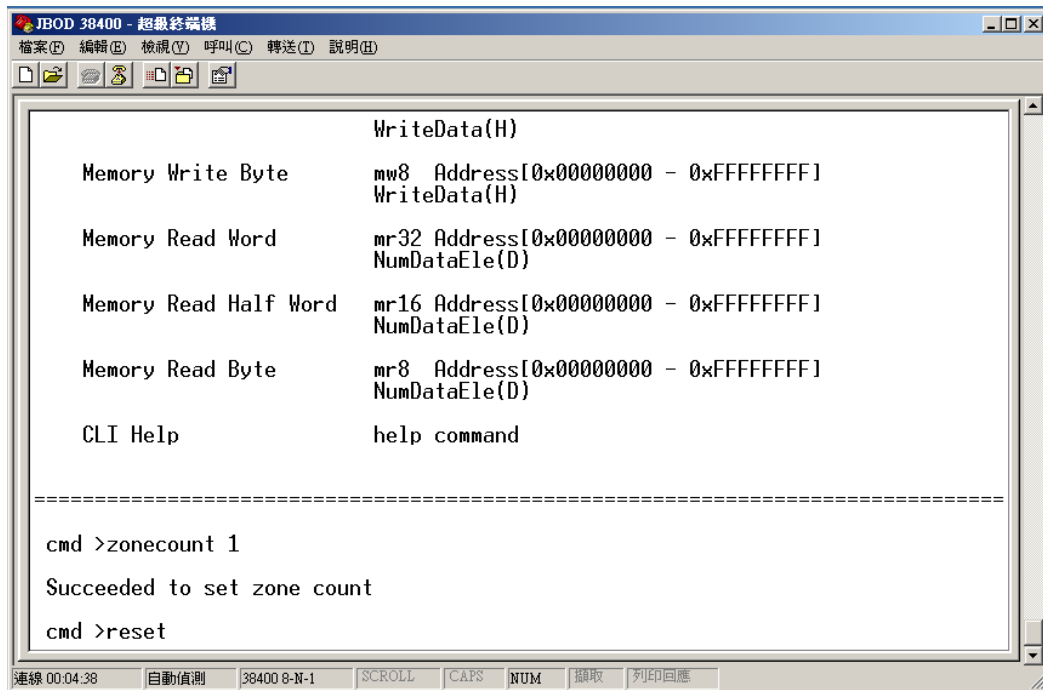
3.4. Configure zone count

Zoning set up instruction

(A) Zone count 1 configuration. COM for Hub, Left Edge and Right Edge should be applied for with the same zone configuration below.

```
cmd> zonecount 1
```

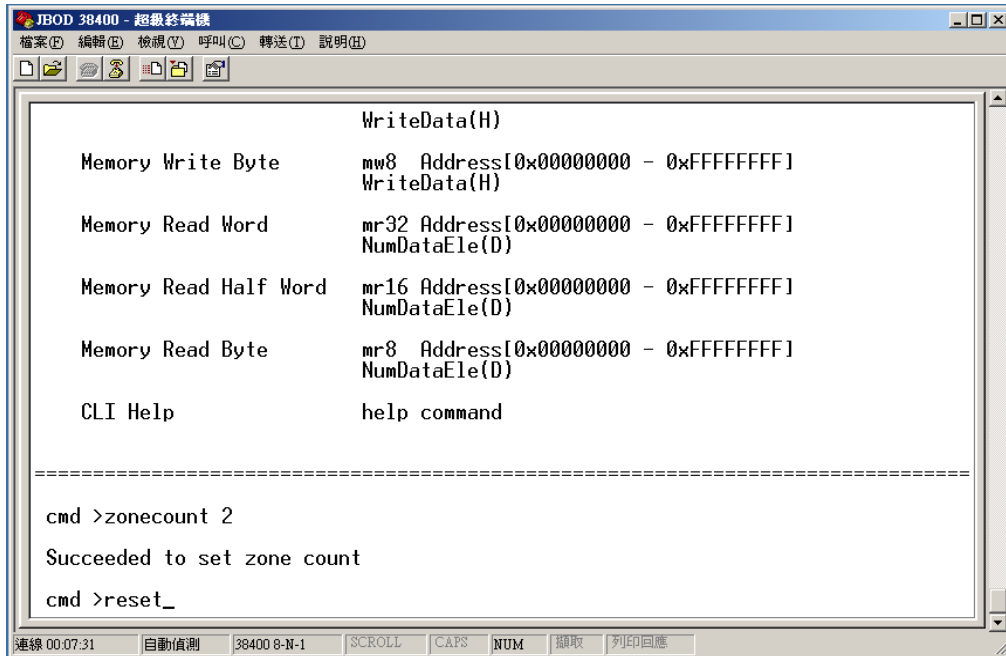
```
cmd> reset
```



(B) Zone count 2 configuration. COM for Hub, Left Edge and Right Edge should be applied for with the same zone configuration below.

cmd> zonecount 2

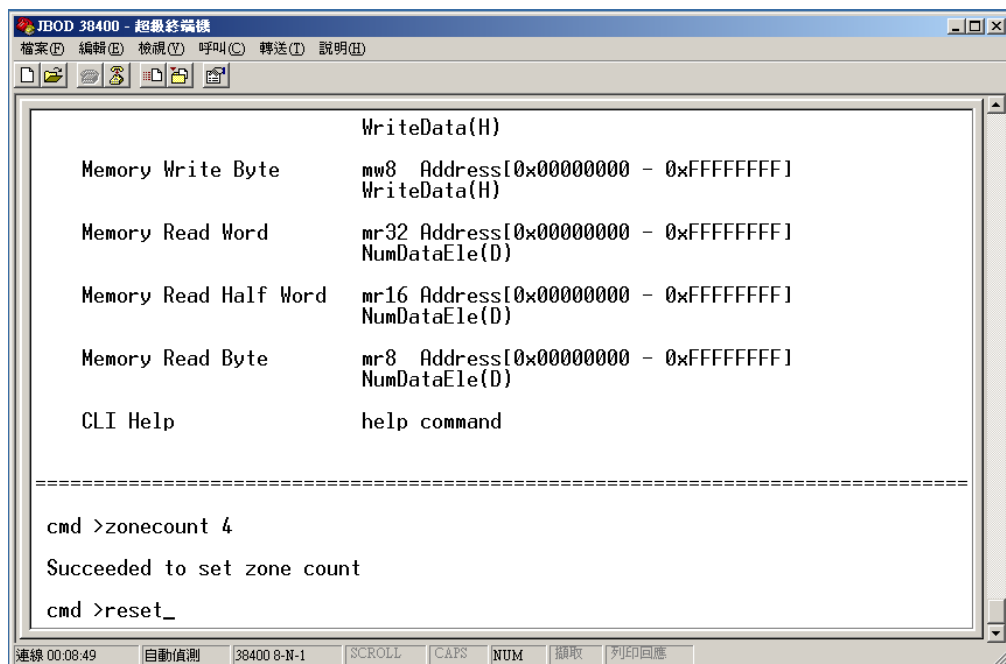
cmd> reset



(C) Zone count 4 configuration. COM for Hub, Left Edge and Right Edge should be applied for with the same zone configuration below.

cmd> zonecount 4

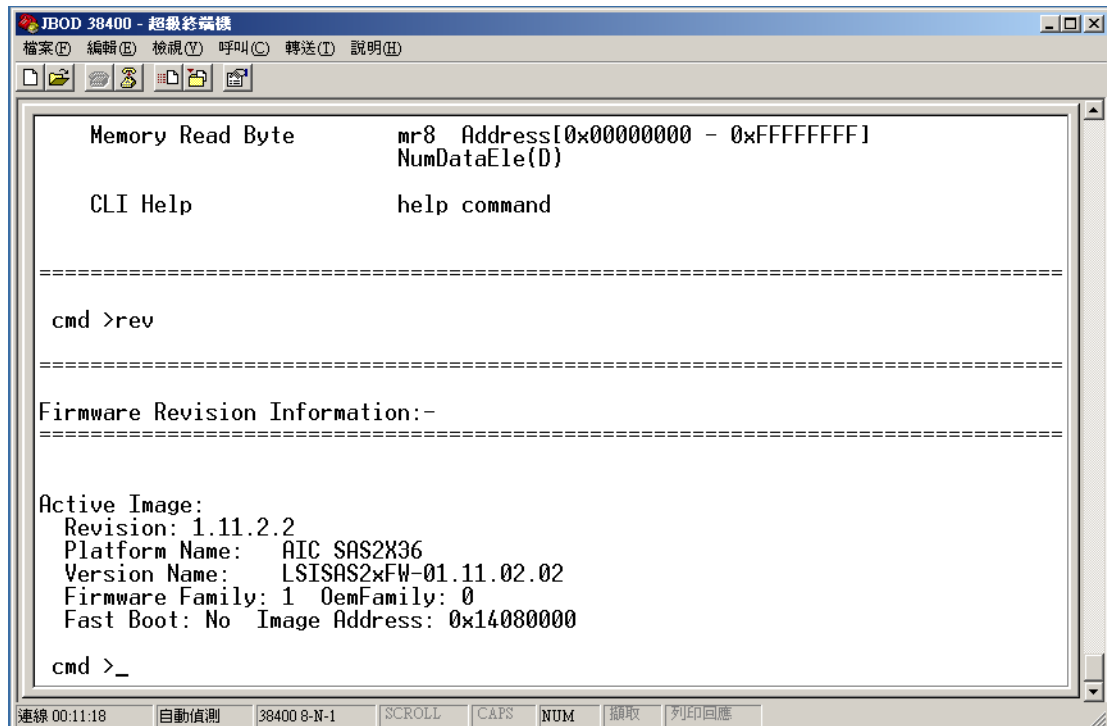
cmd> reset



3.5. Check the Firmware, SAS Address and MFG revisions

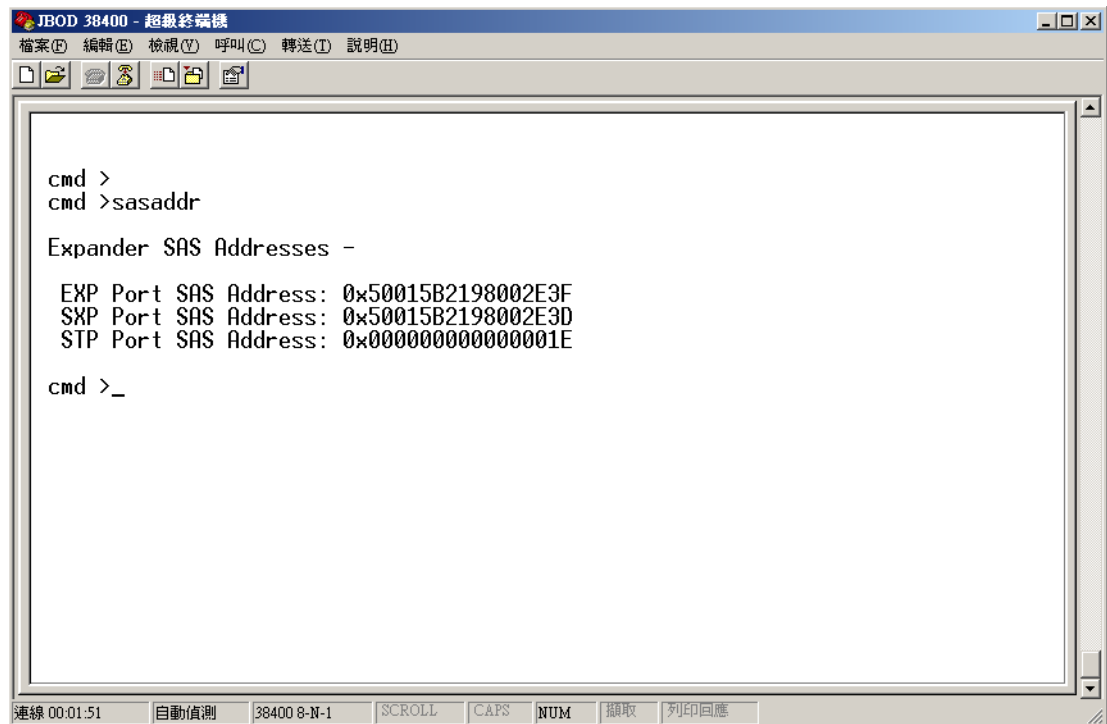
(A) Firmware revision for Hub, Left Edge and Right Edge ports

cmd> rev



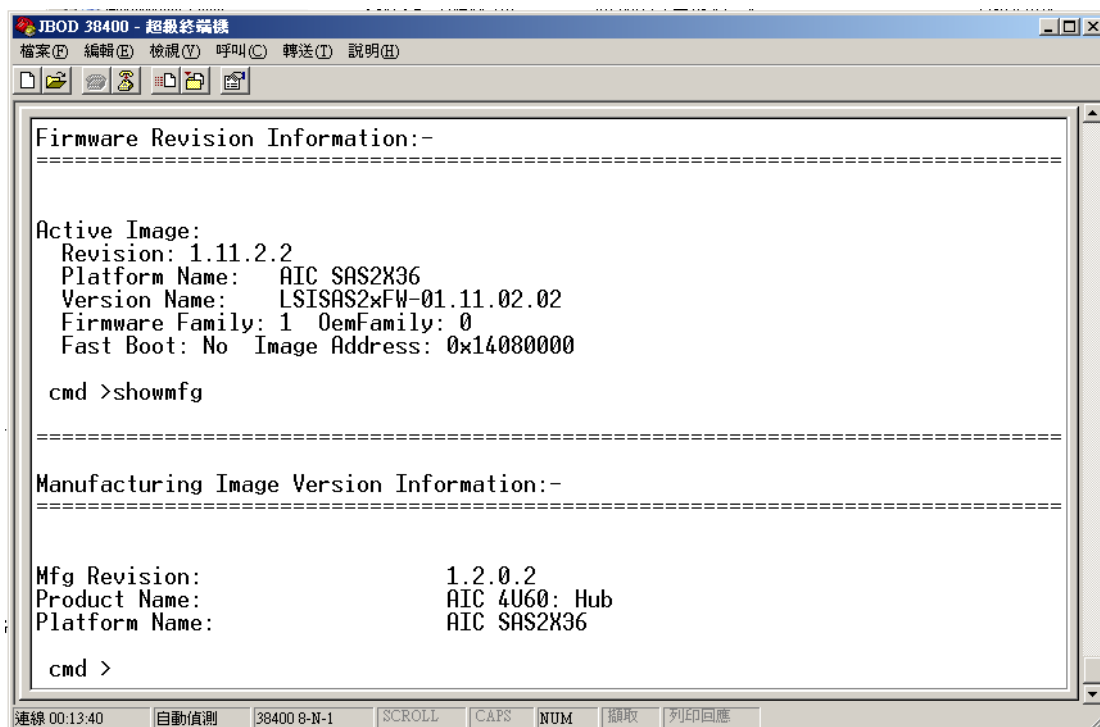
(B) Check SAS Address on Hub, Left Edge and Right Edge ports

cmd> sasaddr

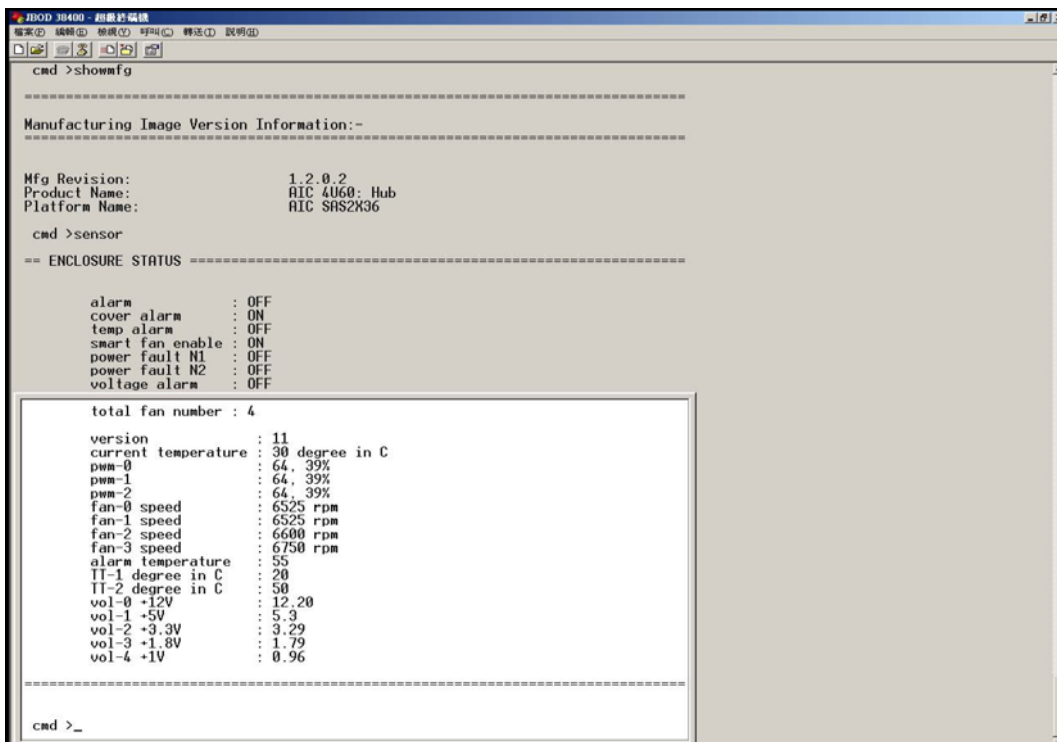


(C) Check MFG configuration revision for Hub, Left Edge and Right Edge ports

cmd> showmfg

**(D) Check Enclosure sensor firmware and data only on Hub port.**

cmd> sensor



3.6. Change temperature sensor threshold setting via Hub port

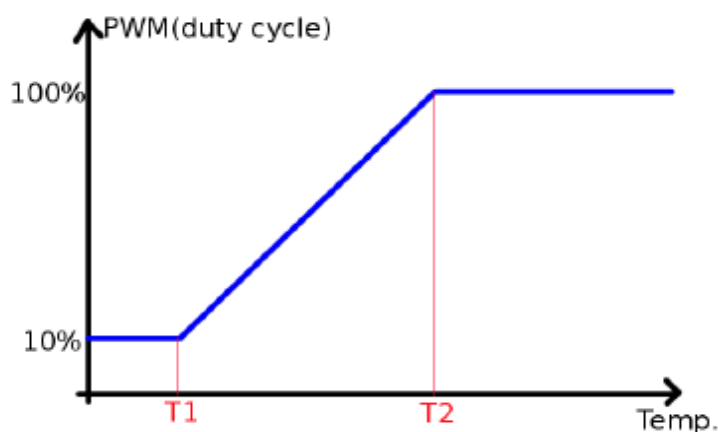
T1: Fan speed is only 10% when temperature is below T1.

Fan speed will line up between T1 to T2 (see below chart)

T2: The fan speed will be 100% when temperature reaches T2.

Warning: The system will send out the warning message when temperature reaches warning point.

Alarm: The system alarm will be on and the temperature LED turns to red when temperature reaches this critical point.



(A) Get the current temperature settings (default threshold)

cmd> temperature

```
JBOD 38400 - 超級終端機
檔案(F) 編輯(E) 檢視(V) 呼叫(C) 轉送(T) 說明(H)

pwm-0      : 64, 39%
pwm-1      : 64, 39%
pwm-2      : 64, 39%
fan-0 speed : 6525 rpm
fan-1 speed : 6525 rpm
fan-2 speed : 6600 rpm
fan-3 speed : 6750 rpm
alarm temperature : 55
T1-1 degree in C : 20
T1-2 degree in C : 50
vol-0 +12V    : 12.20
vol-1 +5V     : 5.3
vol-2 +3.3V   : 3.29
vol-3 +1.8V   : 1.79
vol-4 +1V     : 0.96

=====

cmd >temperature

Temperature in Celsius (t1=20 C, t2=50 C, warning=50 C, alarm=55 C)

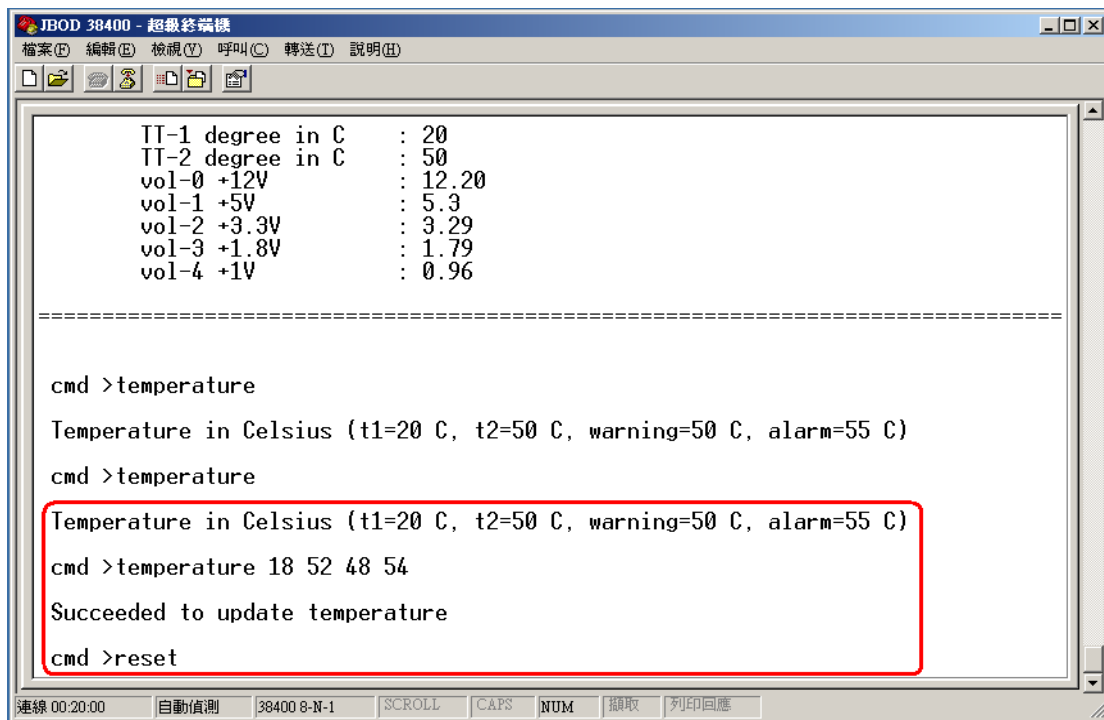
cmd >_

連線 00:18:10 自動偵測 38400 8-N-1 SCROLL CAPS NUM 顯示 列印回應
```

(B) Change temperature with new T1=18 C, T2=52 C, warning threshold=48 C, and alarm threshold=54 C. The new setting will take effect after reset.

```
cmd> temperature 18 52 48 54
```

```
cmd> reset
```



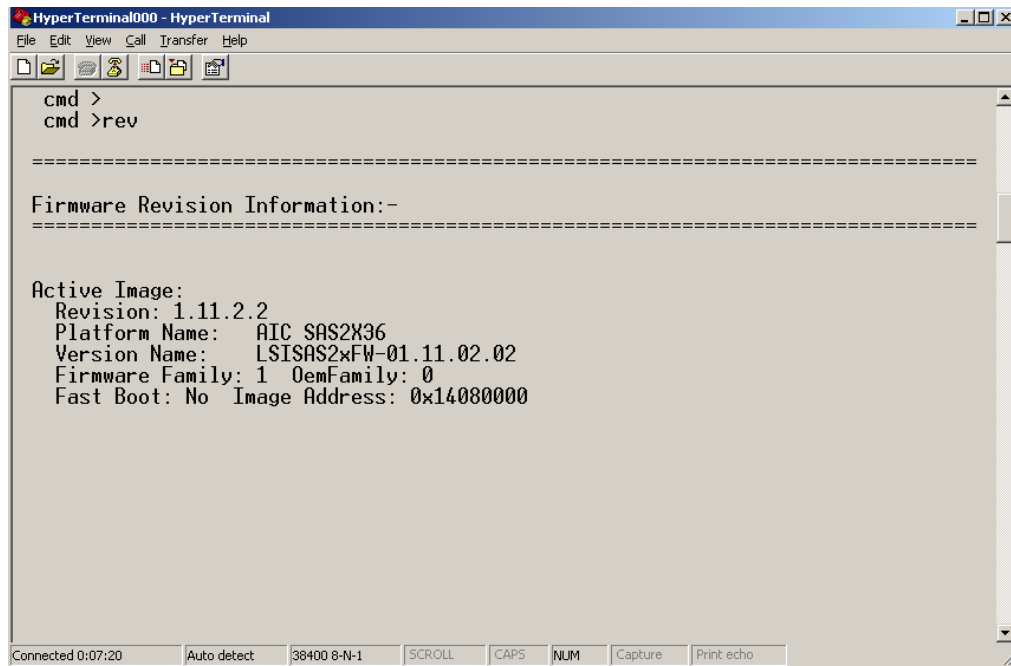
3.7. Firmware and MFG update procedure

3.7.1 Firmware update instruction

Each COM port of Hub, Left Edge and Right Edge have their own Firmware file, please use the correct file for update.

Step 1. check original Firmware revision

cmd> rev



The screenshot shows a HyperTerminal window titled "HyperTerminal000 - HyperTerminal". The command prompt shows "cmd >" followed by "cmd >rev". The output displays "Firmware Revision Information:-" followed by a block of text: "Active Image: Revision: 1.11.2.2 Platform Name: AIC SAS2X36 Version Name: LSI SAS2xFW-01.11.02.02 Firmware Family: 1 OemFamily: 0 Fast Boot: No Image Address: 0x14080000". The status bar at the bottom indicates "Connected 0:07:20", "Auto detect", "38400 8-N-1", "SCROLL", "CAPS", "NUM", "Capture", and "Print echo".

```
HyperTerminal000 - HyperTerminal
File Edit View Call Transfer Help

cmd >
cmd >rev

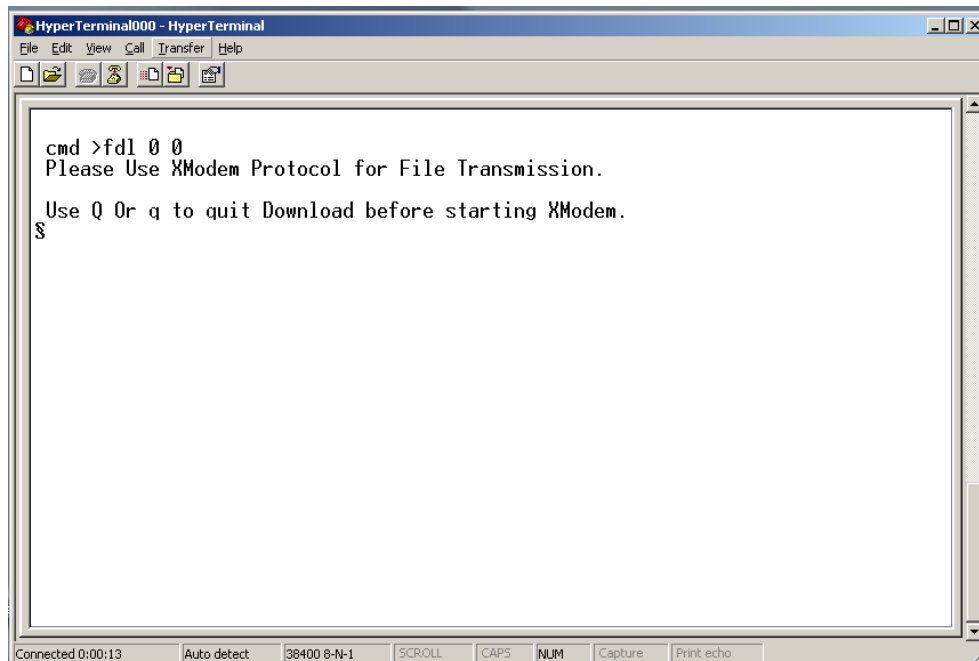
=====
Firmware Revision Information:-
=====

Active Image:
Revision: 1.11.2.2
Platform Name:  AIC SAS2X36
Version Name:   LSI SAS2xFW-01.11.02.02
Firmware Family: 1  OemFamily: 0
Fast Boot: No  Image Address: 0x14080000

Connected 0:07:20  Auto detect  38400 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo
```

Step 2. Update Firmware revision for Hub, Left Edge and Right Edge

cmd>fdl 0 0



The screenshot shows a HyperTerminal window titled "HyperTerminal000 - HyperTerminal". The command prompt shows "cmd >fdl 0 0". The output displays "Please Use XModem Protocol for File Transmission." followed by "Use Q Or q to quit Download before starting XModem." and a prompt character "§". The status bar at the bottom indicates "Connected 0:00:13", "Auto detect", "38400 8-N-1", "SCROLL", "CAPS", "NUM", "Capture", and "Print echo".

```
HyperTerminal000 - HyperTerminal
File Edit View Call Transfer Help

cmd >fdl 0 0
Please Use XModem Protocol for File Transmission.
Use Q Or q to quit Download before starting XModem.
§

Connected 0:00:13  Auto detect  38400 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo
```

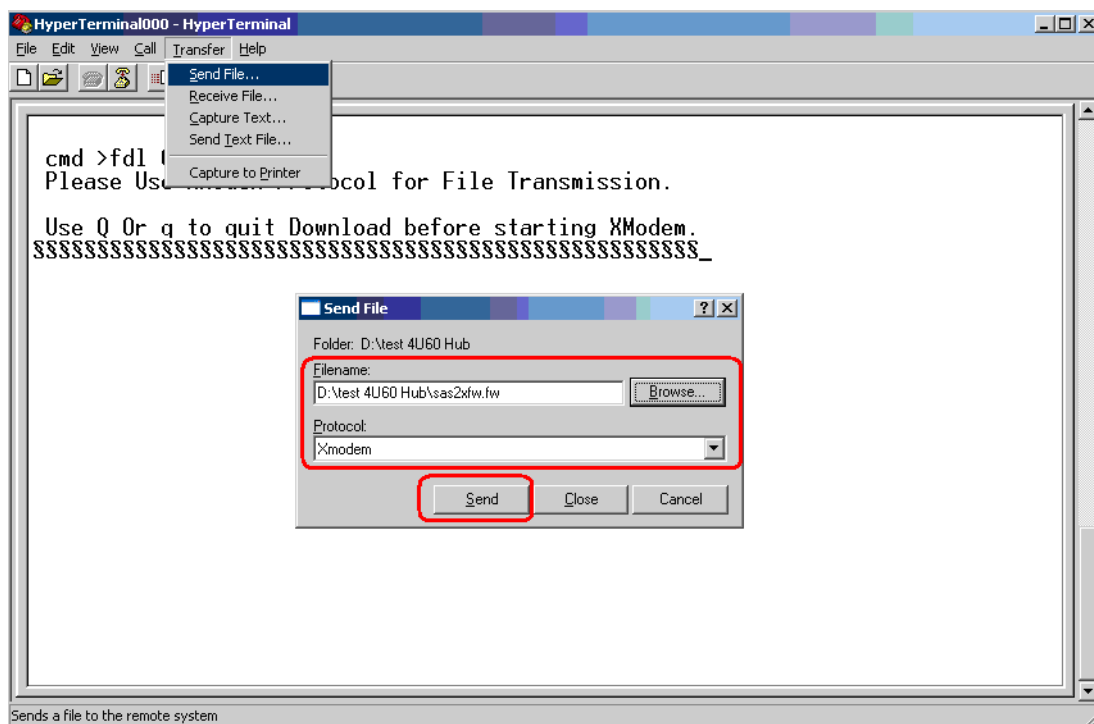
Step 3. Transfer the new firmware from terminal software by XMODEM protocol.

Click Transfer from tool bar

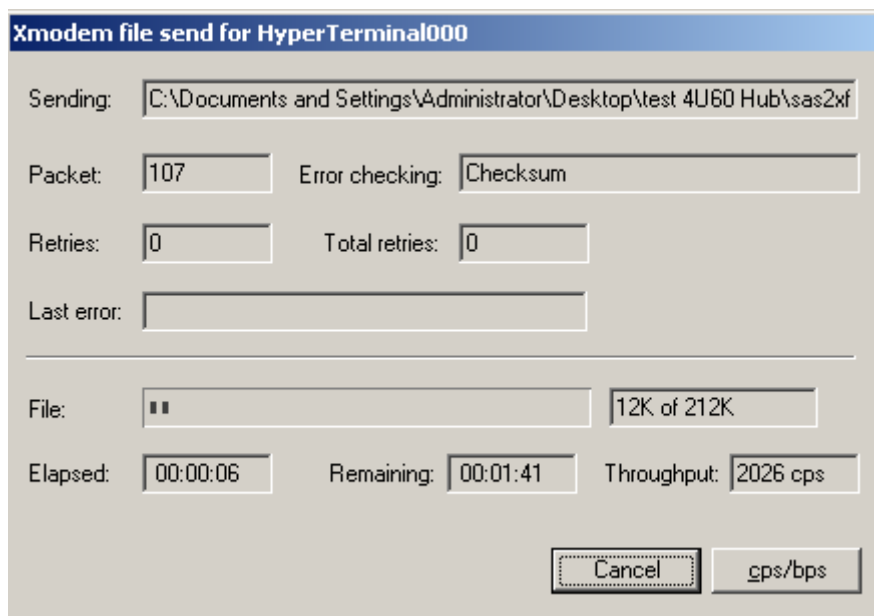
Select "Send File " to Brows the new firmware file location

Select " Xmodem " on Protocol as red mark

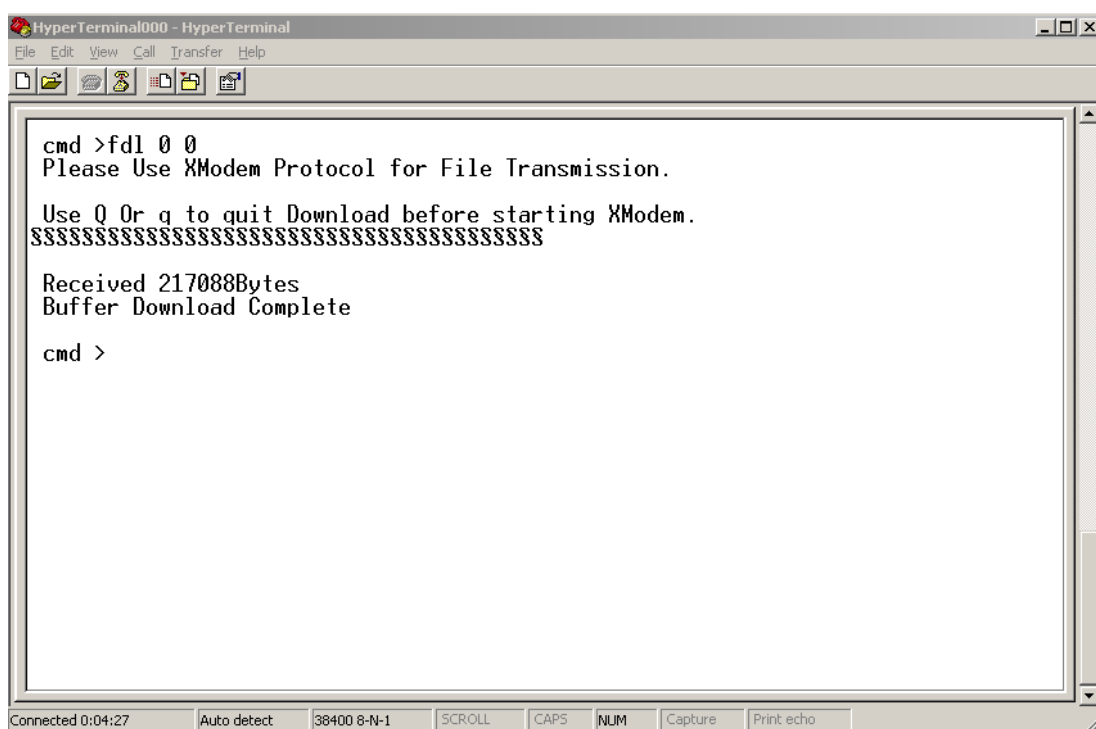
Click " Send "



Step 4. After click send will appear below picture:



Step 5. Firmware update completed

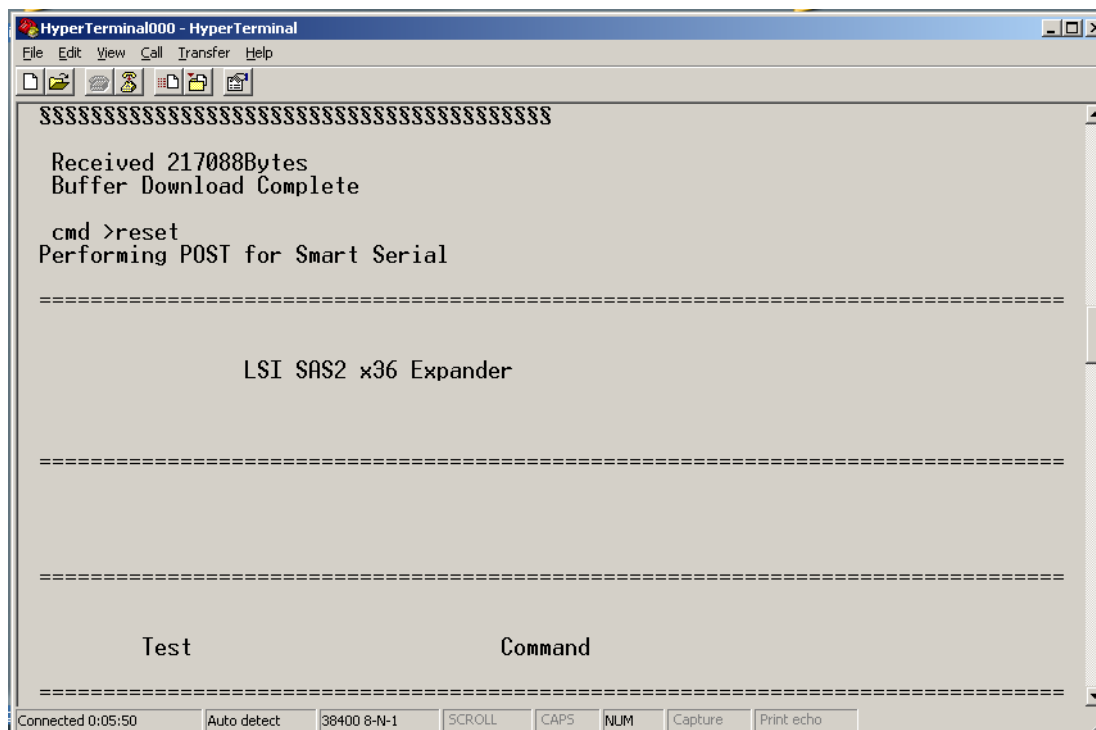


A screenshot of a HyperTerminal window titled "HyperTerminal000 - HyperTerminal". The window has a menu bar (File, Edit, View, Call, Transfer, Help) and a toolbar with icons for file operations and communication. The main text area displays the following text:
cmd >fdl 0 0
Please Use XModem Protocol for File Transmission.
Use Q Or q to quit Download before starting XModem.
~~~~~  
Received 217088Bytes  
Buffer Download Complete  
cmd >  
At the bottom of the window, a status bar shows "Connected 0:04:27", "Auto detect", "38400 8-N-1", "SCROLL", "CAPS", "NUM", "Capture", and "Print echo".

```
cmd >fdl 0 0
Please Use XModem Protocol for File Transmission.
Use Q Or q to quit Download before starting XModem.
~~~~~
Received 217088Bytes
Buffer Download Complete
cmd >
```

## Step 6. Reset for saving Firmware update

cmd>reset

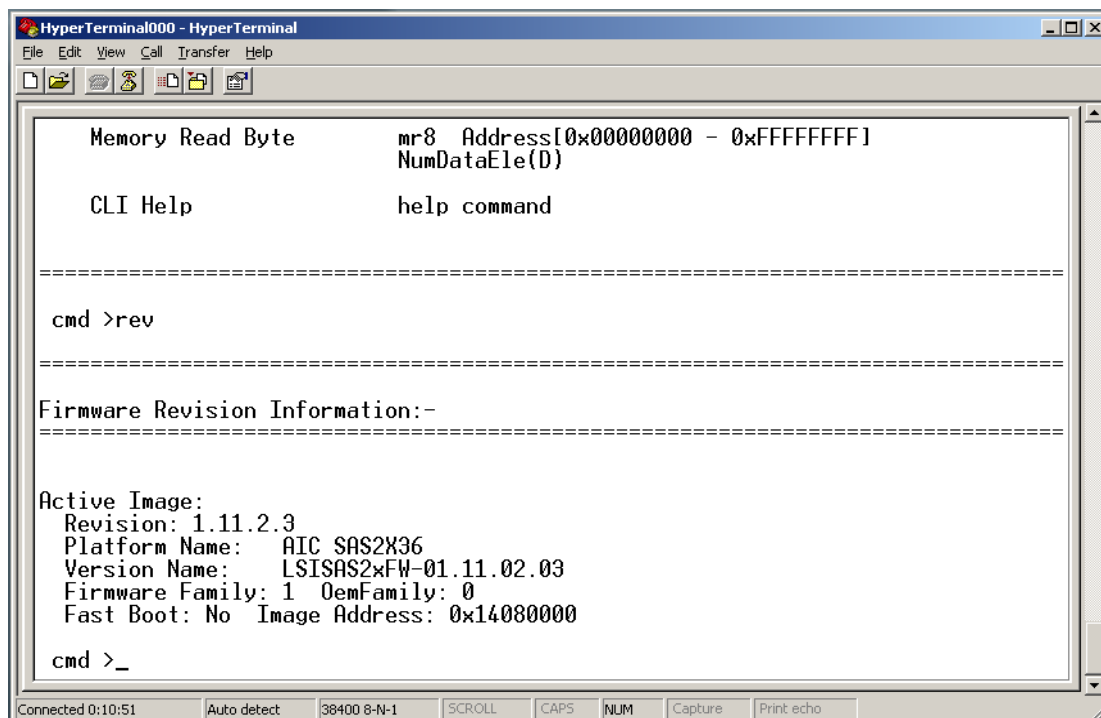


A screenshot of a HyperTerminal window titled "HyperTerminal000 - HyperTerminal". The window displays the following text:  
~~~~~  
Received 217088Bytes  
Buffer Download Complete  
cmd >reset  
Performing POST for Smart Serial  
~~~~~  
LSI SAS2 x36 Expander  
~~~~~  
~~~~~  
Test Command  
~~~~~  
At the bottom of the window, a status bar shows "Connected 0:05:50", "Auto detect", "38400 8-N-1", "SCROLL", "CAPS", "NUM", "Capture", and "Print echo".

```
~~~~~
Received 217088Bytes
Buffer Download Complete
cmd >reset
Performing POST for Smart Serial
~~~~~
LSI SAS2 x36 Expander
~~~~~
~~~~~
Test Command
~~~~~
```

## Step 7. Check the update Firmware revision

```
cmd>rev
```



```
HyperTerminal000 - HyperTerminal
File Edit View Call Transfer Help

Memory Read Byte      mr8 Address[0x00000000 - 0xFFFFFFFF]
                      NumDataEle(D)

CLI Help              help command

=====

cmd >rev

=====

Firmware Revision Information:-
=====

Active Image:
Revision: 1.11.2.3
Platform Name:  AIC SAS2X36
Version Name:   LSI SAS2xFW-01.11.02.03
Firmware Family: 1  OemFamily: 0
Fast Boot: No  Image Address: 0x14080000

cmd >_

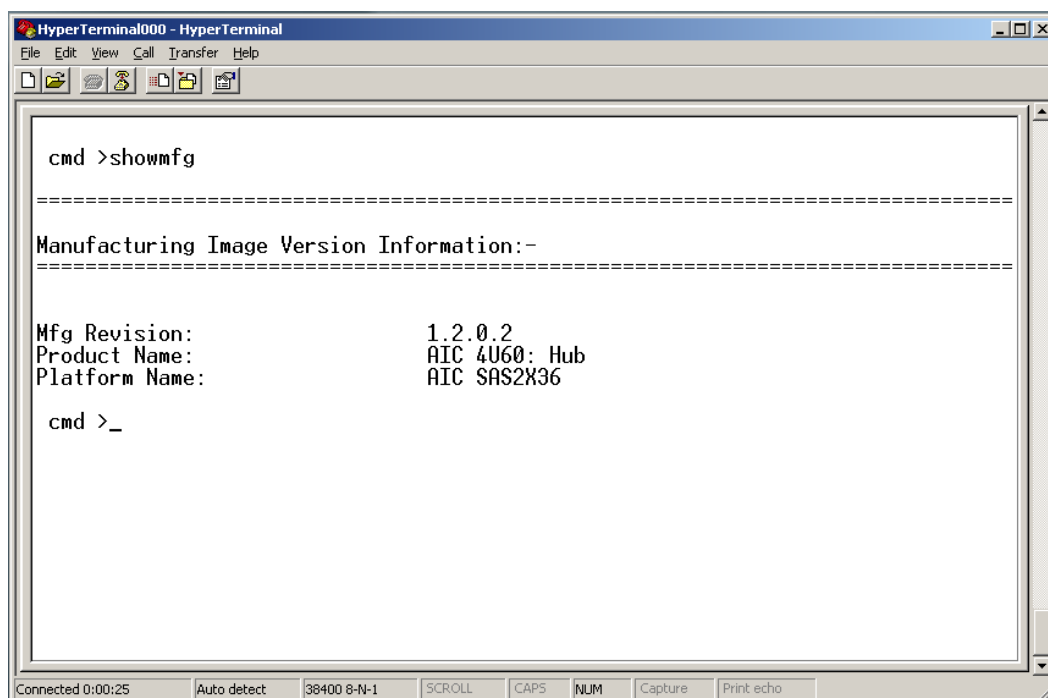
Connected 0:10:51  Auto detect  38400 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo
```

## 3.7.2 MFG update instruction

Each COM port of Hub, Left Edge and Right Edge have their own MFG file, please use the correct file for update

## Step 1. Check original MFG revision

```
cmd> showmfg
```



```
HyperTerminal000 - HyperTerminal
File Edit View Call Transfer Help

cmd >showmfg

=====

Manufacturing Image Version Information:-
=====

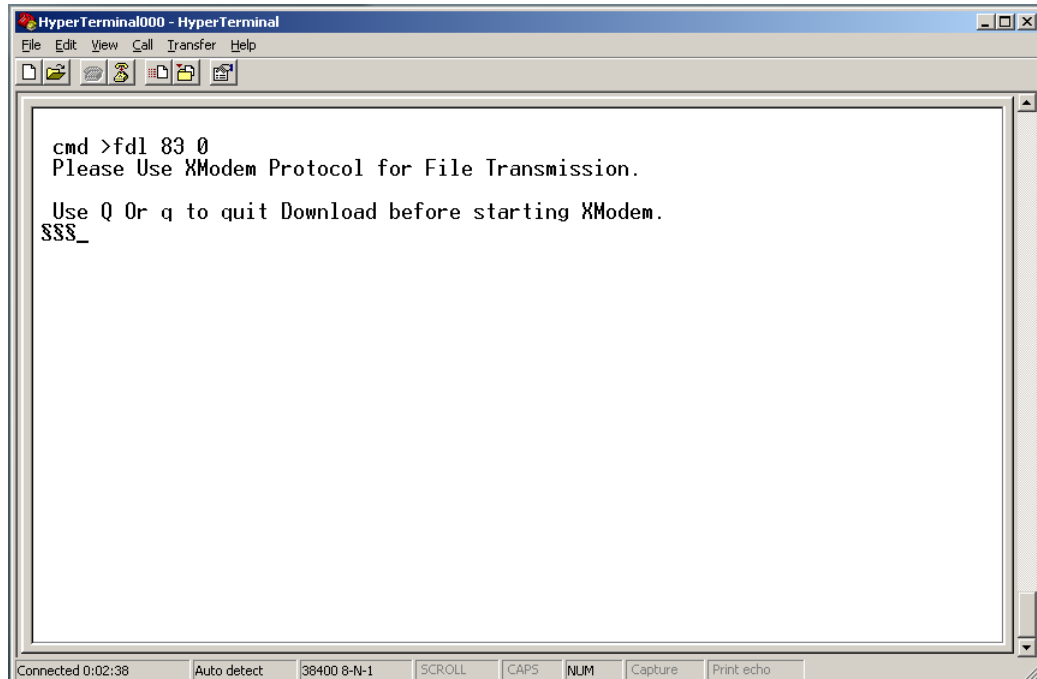
Mfg Revision:          1.2.0.2
Product Name:          AIC 4U60: Hub
Platform Name:         AIC SAS2X36

cmd >_

Connected 0:00:25  Auto detect  38400 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo
```

## Step 2. Update MFG revision for Hub, Left Edge and Right Edge

```
cmd>fdl 83 0
```



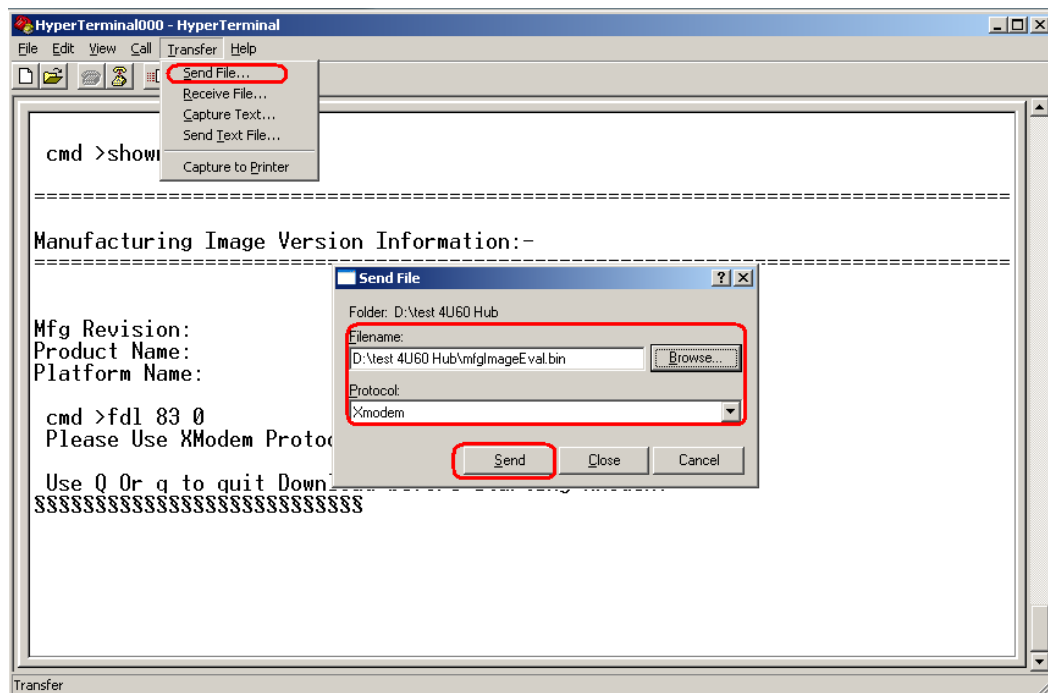
## Step 3. Transfer the new firmware from terminal software by XMODEM protocol.

Click Transfer from tool bar

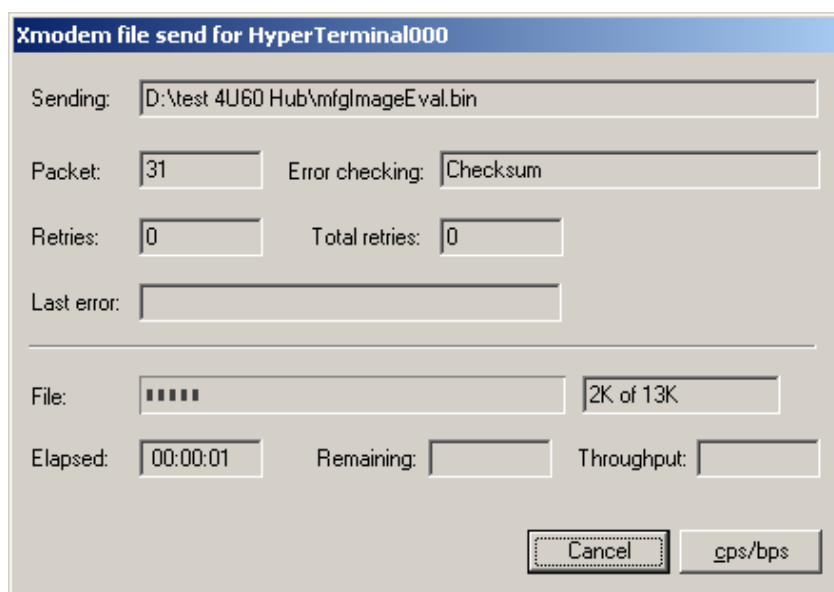
Select "Send File " to Brows the new firmware file location

Select " Xmodem " on Protocal as red mark

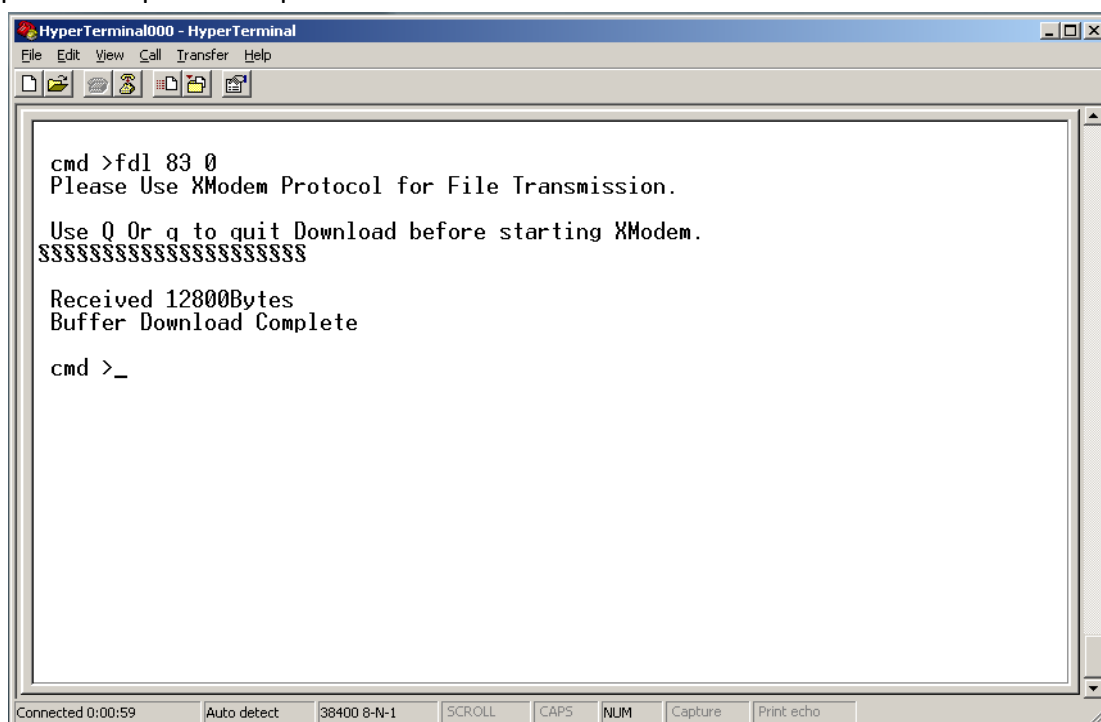
Click " Send "



Step 4. After click send will appear below picture

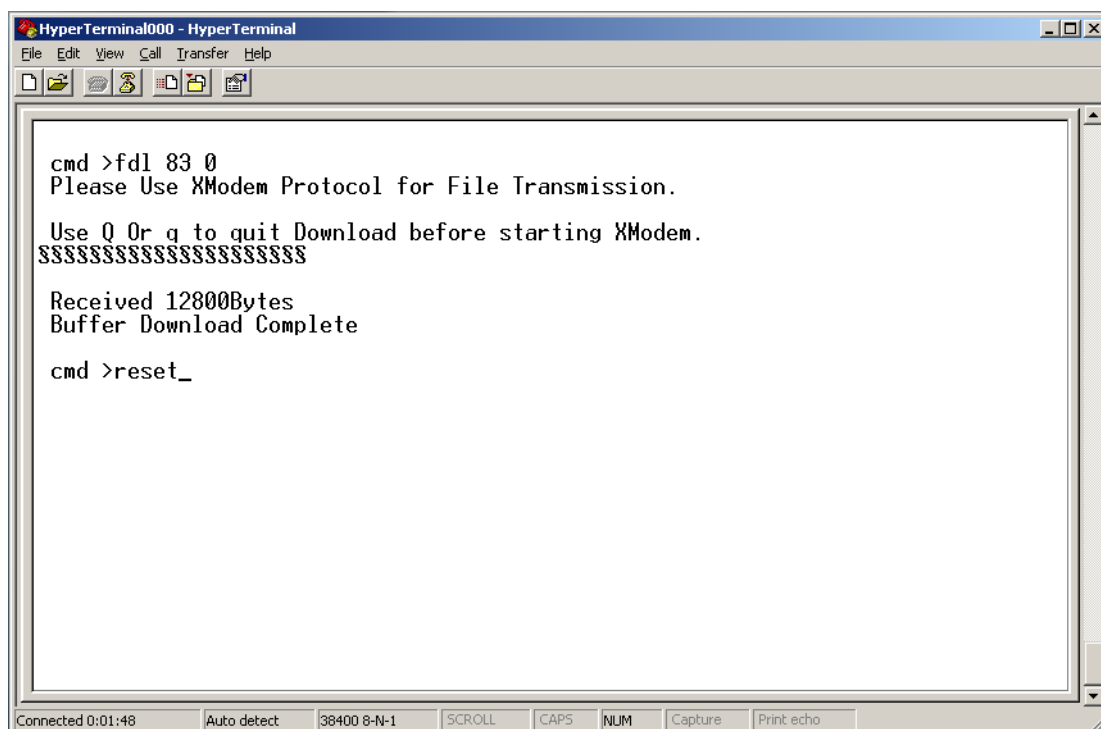


Step 5. MFG update completed



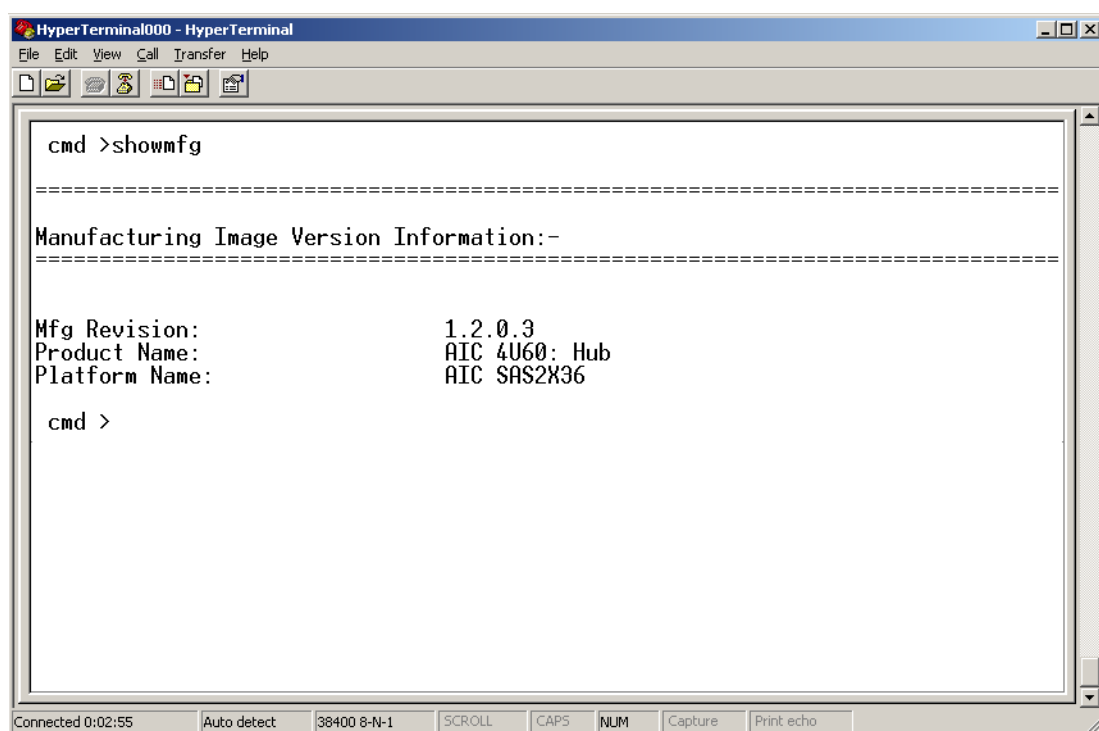
### Step 6. Reset for saving MFG update

```
cmd> reset
```



### Step 7. Check the update MFG version information

```
cmd>showmfg
```



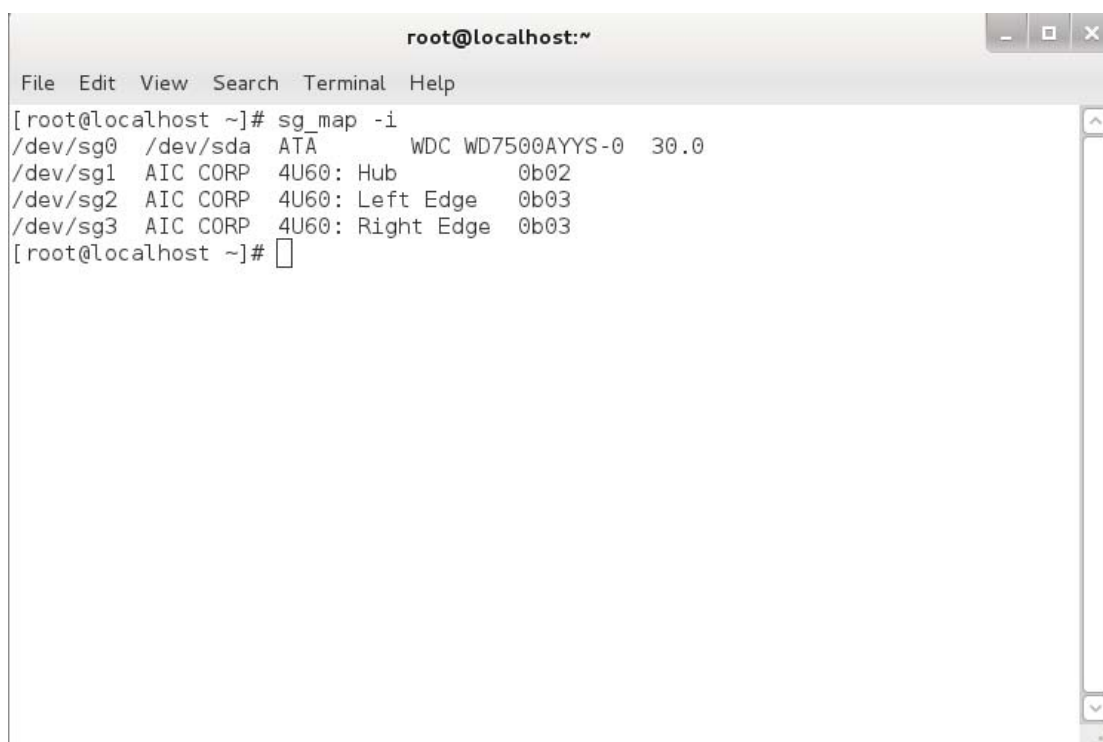
### 3.8 Identify the enclosure

Please install a software package "sg3\_utils" (download from [http://sg.danny.cz/sg/sg3\\_utils.html](http://sg.danny.cz/sg/sg3_utils.html)) on your host computer. (Open source sg3\_utils might have compatible with Raid/HBA cards, please refer our QVL list in index1)  
Mini SAS connect to JBOD.

The example install software package "sg3\_utils (1.33 version)" and use Linux with WD HDD (A) and Windows with Seagate HDD (B) as below:

#### (A) Show the device for the enclosure

# sg\_map -i



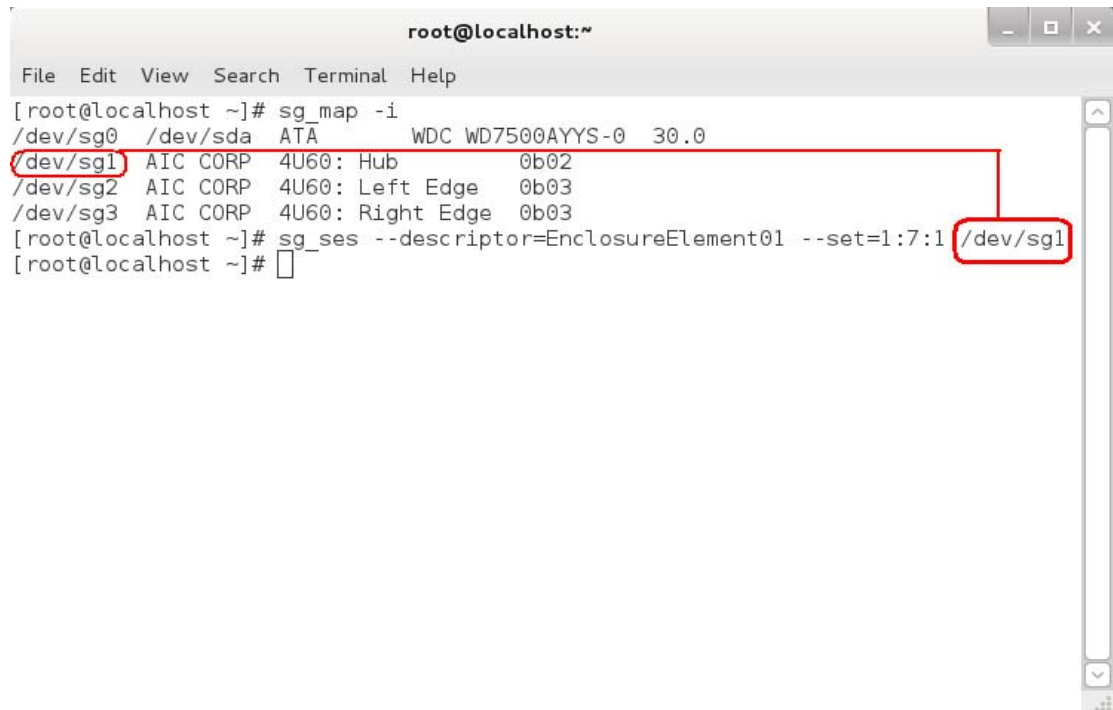
```
root@localhost:~  
File Edit View Search Terminal Help  
[root@localhost ~]# sg_map -i  
/dev/sg0 /dev/sda ATA WDC WD7500AYYS-0 30.0  
/dev/sg1 AIC CORP 4U60: Hub 0b02  
/dev/sg2 AIC CORP 4U60: Left Edge 0b03  
/dev/sg3 AIC CORP 4U60: Right Edge 0b03  
[root@localhost ~]#
```

**(B) Enable the enclosure identity.**

Please use the hub mapped device to enable the enclosure identity.

```
# sg_ses --descriptor=EnclosureElement01 --set=1:7:1
```

```
/dev/sg1
```



A terminal window titled 'root@localhost:~' showing the execution of two commands. The first command, 'sg\_map -i', lists several SCSI devices. The second command, 'sg\_ses --descriptor=EnclosureElement01 --set=1:7:1 /dev/sg1', is used to enable the enclosure identity. Red boxes highlight '/dev/sg1' in both the command list and the command execution line, with a red line connecting them.

```
root@localhost:~  
File Edit View Search Terminal Help  
[root@localhost ~]# sg_map -i  
/dev/sg0 /dev/sda ATA WDC WD7500AYYS-0 30.0  
/dev/sg1 AIC CORP 4U60: Hub 0b02  
/dev/sg2 AIC CORP 4U60: Left Edge 0b03  
/dev/sg3 AIC CORP 4U60: Right Edge 0b03  
[root@localhost ~]# sg_ses --descriptor=EnclosureElement01 --set=1:7:1 /dev/sg1  
[root@localhost ~]#
```

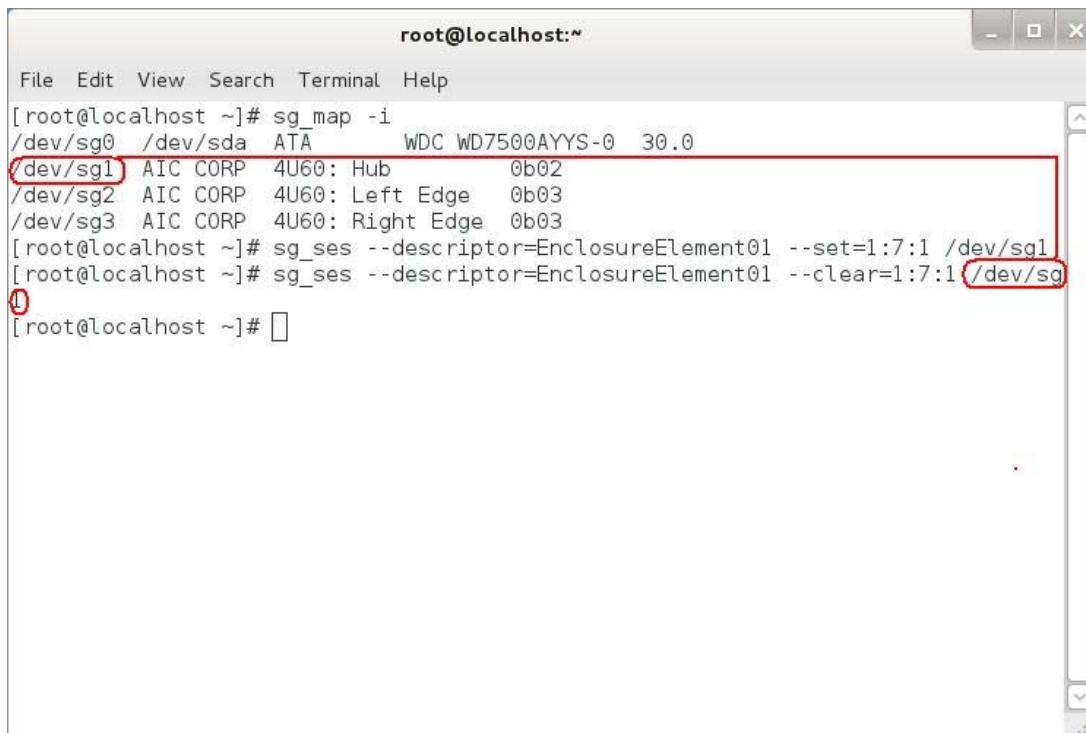
Power Light on:



**(C) Disable the enclosure identity.**

Please use the hub mapped device to disable the enclosure identity.

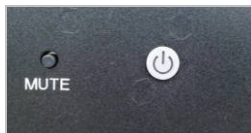
```
# sg_ses --descriptor=EnclosureElement01 --clear=1:7:1 /dev/sg1
```



A terminal window titled 'root@localhost:~' showing the execution of two commands. The first command, 'sg\_map -i', lists four SCSI devices: /dev/sg0 (ATA, WDC WD7500AYYS-0, 30.0), /dev/sg1 (AIC CORP, 4U60: Hub, 0b02), /dev/sg2 (AIC CORP, 4U60: Left Edge, 0b03), and /dev/sg3 (AIC CORP, 4U60: Right Edge, 0b03). The second command, 'sg\_ses --descriptor=EnclosureElement01 --clear=1:7:1 /dev/sg1', is shown twice. In the first instance, the command is partially visible. In the second instance, the command is fully visible, and the output path '/dev/sg1' is circled in red. A red box highlights the output of the 'sg\_map -i' command. A red circle with a downward arrow points to the second instance of the 'sg\_ses' command.

```
root@localhost:~  
File Edit View Search Terminal Help  
[root@localhost ~]# sg_map -i  
/dev/sg0 /dev/sda ATA WDC WD7500AYYS-0 30.0  
/dev/sg1 AIC CORP 4U60: Hub 0b02  
/dev/sg2 AIC CORP 4U60: Left Edge 0b03  
/dev/sg3 AIC CORP 4U60: Right Edge 0b03  
[root@localhost ~]# sg_ses --descriptor=EnclosureElement01 --set=1:7:1 /dev/sg1  
[root@localhost ~]# sg_ses --descriptor=EnclosureElement01 --clear=1:7:1 /dev/sg1  
[root@localhost ~]#
```

Power Light off:





The example uses Windows with Seagate HDD as below:

**(A) Show the device for the enclosure**

C:\sg3\_utils-1.33>sg\_scan -s

```

C:\WINDOWS\system32\cmd.exe
C:\sg3_utils-1.33>sg_scan -s
PD0      [CD]      ST9160511NS  SN04
PD1      [E]      JetFlash TS4GJFU30      8.07

SCSI0:0,0,0   claimed=1 pdt=0h dubious ST916051 1NS      SN04
SCSI4:0,56,0   claimed=0 pdt=dh      AIC CORP 4U60: Hub      0b02
SCSI4:0,57,0   claimed=0 pdt=dh      AIC CORP 4U60: Left Edge 0b03
SCSI4:0,58,0   claimed=0 pdt=dh      AIC CORP 4U60: Right Edge 0b03
SCSI4:1,64,0   claimed=0 pdt=1fh dubious RAID      DummyDevice 0001

C:\sg3_utils-1.33>

```

**(B) Enable the enclosure identity.** Only Hub should be applied

C:\sg3\_utils-1.33> sg\_ses --descriptor=EnclosureElement01 --set=1:7:1 SCSI  
4:0,56,0

```

C:\WINDOWS\system32\cmd.exe
C:\sg3_utils-1.33>sg_scan -s
PD0      [CD]      ST9160511NS  SN04
PD1      [E]      JetFlash TS4GJFU30      8.07

SCSI0:0,0,0   claimed=1 pdt=0h dubious ST916051 1NS      SN04
SCSI4:0,56,0   claimed=0 pdt=dh      AIC CORP 4U60: Hub      0b02
SCSI4:0,57,0   claimed=0 pdt=dh      AIC CORP 4U60: Left Edge 0b03
SCSI4:0,58,0   claimed=0 pdt=dh      AIC CORP 4U60: Right Edge 0b03
SCSI4:1,64,0   claimed=0 pdt=1fh dubious RAID      DummyDevice 0001

C:\sg3_utils-1.33>sg_ses --descriptor=EnclosureElement01 --set=1:7:1 SCSI
4:0,56,0

```



(C) C:\sg3\_utils-1.33> sg\_ses --descriptor=EnclosureElement01 --clear=1:7:1  
SCSI4:0,56,0

```

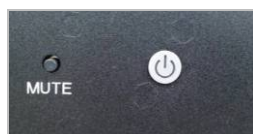
C:\sg3_utils-1.33>sg_scan -s
PD0    [CD]    ST9160511NS  SN04
PD1    [E]    JetFlash  TS4GJFU30      8.07

SCSI0:0.0.0  claimed=1 pdt=0h dubious ST916051 1NS SN04
SCSI4:0,56,0 claimed=0 pdt=dh      AIC CORP 4060: Hub 0b02
SCSI4:0,57,0 claimed=0 pdt=dh      AIC CORP 4060: Left Edge 0b03
SCSI4:0,58,0 claimed=0 pdt=dh      AIC CORP 4060: Right Edge 0b03
SCSI4:1,64,0 claimed=0 pdt=1fh dubious RAID DummyDevice 0001

C:\sg3_utils-1.33>sg_ses --descriptor=EnclosureElement01 --clear=1:7:1 SCSI4:0,56,0

```

Power Light off:



**Index 1: QVL list for Mega Raid card to located system ID**

| <b>QVL Mega Raid card under Linux OS:</b>   |            |
|---------------------------------------------|------------|
| LSI MegRAID                                 | 9280-4i4e  |
| LSI MegRAID                                 | 9280-24i4e |
| LSI MegRAID                                 | 9280-16i4e |
| LSI MegRAID                                 | 8888ELP    |
| LSI HBA                                     | 3801E      |
| INTEL Raid card                             | RS2BL080   |
| INTEL Raid card                             | RS2PI008   |
| <b>QVL Mega Raid card under Windows OS:</b> |            |
| LSI MegRAID                                 | 9280-16i4e |
| LSI MegRAID                                 | 9280-24i4e |
| LSI MegRAID                                 | 9280-4i4e  |
| LSI MegRAID                                 | 8888ELP    |
| LSI HBA                                     | 3801E      |

- Always refer to the Web site for updates on QVL list.